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Comparing the Pedagogical Thinking of More Successful and Less Successful Adult ESL Instructors Using Stimulated Recall

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ABSTRACT

Comparing the Pedagogical Knowledge of Successful and

Less Successful Adult ESL Instructors

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This paper reports a study that examined the pedagogical knowledge (knowledge and beliefs related to the act of teaching) of two more successful and two less successful adult ESL instructors during planning teaching and post teaching reflection. The verbal reports of their teaching were compared to previous studies (Gatbonton, 2000, 2008; Mullock, 2006) that used stimulated recall to categorize adult ESL instructors' pedagogical thoughts during their instruction. The comparison showed that the previous categories were inadequate to cover the data. Additional codes were added in order to codify all the data after which patterns and themes emerged that overarched the previous categories. The five pattern themes among the four participants included academic focus, comprehension, engagement, language management, and student centered.

The two more successful teachers each had one specific pattern theme whose fundamental focus was on student learning. These themes dominated the more successful teachers' pedagogical foci while the other four themes were subservient to that dominant theme. Like the more successful teachers all five pattern themes were present in the planning and reflection of the less successful teachers. However, the protocols of the less successful Adult ESL teachers did not exhibit a central theme or pedagogical focus that orchestrated and directed the movement of their pedagogical thoughts among the remaining pattern themes. This lack of a dominant theme meant that the pedagogical foci of these teachers moved from one theme to another without a consistent orientation toward a central goal. The conflicted or divided nature of the pedagogical thinking of these less successful teachers may contribute to the reduction in the learning of students in their classes.

Keywords: academic focus, adult education, comprehension, ELL, engagement, ESL, language management, less successful teachers, novice, pedagogy, planning, reflection, stimulated recall, student centered instruction, successful teachers

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Chapter 1

Introduction

Adult English as a second language (ESL) instructors are a professionally diverse population. Some have many years of experience in adult ESL and very little formal training in how to teach adults to acquire a second language. Others have extensive training and very little experience. Many have both training and experience, and still others have neither. There are even adult ESL teachers who have been trained in teaching and have experience but it is outside of adult ESL such as in elementary education or special education.

Many adult ESL teachers are successful, while others are less successful in helping immigrant populations develop English language skills. However, there is no reported research that provides a correlation between successful teachers and training in adult ESL instruction. Nor is there a reported correlation between years of experience and success in the adult ESL classroom. In other words, a successful teacher may not have years of experience and training, and a less successful teacher may have both years of experience and adult ESL training. Rather than education or experience it may be the pedagogical knowledge of the teacher that distinguishes between successful and less successful teachers.

Previous research (Gatbonton, 2000, 2008; Mullock, 2006) has shown that it is possible to access teacher's knowledge about their underlying actions and thinking in classroom instruction. This research also identified differences in the pedagogical knowledge of novice and experienced teachers. However, these studies did not use student performance as a criterion when selecting subject participants for their study. As a result, we do not know very much about whether the knowledge and the thinking of successful adult ESL teachers differs from that of less successful teachers. If we compared thinking of adult ESL teachers who were more successful as

instructors with those who were less successful teachers it might help us better understand the relationship between teacher knowledge and successful second language acquisition.

The Purpose

Beginning with pedagogical knowledge codes from work by Gatbonton (2000, 2008) and Mullock (2006), this study examines the similarities and differences in the themes and patterns in the thinking of more and less successful adult ESL teachers. During planning, teaching, and post lesson reflection.

Definition of Terms

Adult Education: services or instruction below the postsecondary level for individuals who are 16 and over, and who are not enrolled, or required to be enrolled, in secondary school. Eligible individuals must also "lack sufficient mastery of basic educational skills to enable the individuals to function effectively in society;" lack a high school diploma or equivalent; or be "…unable to speak, read, or write the English language" (Lasater & Elliott, 2005, pp. 1–2).

English as a Second Language: (ESL) refers to the teaching of English to those whose native language is not English. The acronym is sometimes used to refer to the students who are getting such instruction (Lasater & Elliott, 2005). These students are also known as English Language Learners (ELL) (Florez & Burt, 2001) or Limited English Proficient (LEP) (Lasater & Elliott, 2005) students.

Experienced Teachers: teachers with many years of teaching behind them, with "many" interpreted as at least four to five years (Gatbonton, 2008, p. 162)

Immigrant Students: people (both documented and undocumented) who have come to the United States to live and work and have become students, in this case in English classes, after their arrival. They differ from International students in that they are not here specifically to learn

English or participate in higher education in the United States (Brickman & Nuzzo, 1999; Reid, 1997).

Less Successful Teachers: teachers who do not usually receive high marks from their teacher observations or student feedback reports. They may have a higher drop-out rate in their classes. Their students do not usually have high GPA's or high attendance rates. This is not to say that these teachers are failing, they are simply not achieving as high results as more successful teachers with their students.

Novice Teachers: teachers who are still undergoing training, who have just completed their training, or who have just commenced teaching and still have very little (e.g. less than two years) experience behind them (Gatbonton, 2008, p. 162).

More Successful Teachers: teachers who consistently achieve high evaluations on their teacher observations, student feedback reports as well as have high student attendance and student retention in their classes. Their students' grade point average scores are also consistently high.

Teaching English to Speakers of Other Languages: (TESOL) refers to the pedagogy of teaching ESL most often for postgraduate degrees (Crandall, 1994).

Pedagogical Knowledge: thoughts and beliefs that teachers hold about teaching that influence and inform their teaching. It is not only knowledge of the content to be taught, but also how best to teach that content to particular students (Borg, 2003; Shulman, 1986).

Second Language Acquisition: (SLA) the process underlying student progress in coming to understand and development fluency and literacy in a non-native language (Ellis, 2005).

Chapter 2

Review of Literature

This review of literature includes attention to relevant research related to teacher knowledge and teaching adult ESL learners. It considers challenges to ESL programs and reports what is known about adult ESL teacher knowledge. This review also reports recommendations on teacher knowledge from general education as well as an examination of what constitutes adult ESL teacher knowledge. Finally, it reviews limitations in this research.

Challenges of Adult ESL Instruction

Adult ESL programs face many challenges. Cronen, Silver-Pacuilla, and Condelli (2005) accurately described the typical teachers in such programs as well as the facilities they find themselves teaching in:

> Often poorly paid and working part-time, they usually receive little or no professional development and teach in crowded classrooms with limited resources. Furthermore, the open enrollment policies of many programs, along with the relatively low retention and attendance of adult ESL students, interfere with providing the continuous level of instruction students need to acquire literacy and language skills. (p. 1)

With rising numbers of immigrants who want to learn English, ESL classes often become overcrowded. Yet, even though the classes are popular with the public, they lack consistent external funding. While funding for adult ESL programs has increased over the last few decades recent data shows that on average state and federal budgets spent $374.00 per year per adult ESL student which is only a fraction of the $6,835.00 that is spent on elementary or secondary students (Van Duzer & Florez, 2003). Often funding for adult ESL classes comes from tuition paid by adult ELLs. The low wages of Adult ESL immigrant students make it difficult for

programs to charge higher prices for the courses. As a result, private adult ESL programs often find it almost impossible to pay their teachers competitive wages. In addition, the work schedules of ELL students in these programs necessitate odd school hours and so many of the adult ESL teachers either work part time supplementing this with another job, or they use adult ESL teaching to supplement a regular teaching position. This combination of low pay and odd teaching hours makes it difficult to keep teachers for any length of time.

Another effect of this dismal funding and resulting high turnover rate is that programs rarely provide on-going professional development for their teachers (Burt & Keenan, 1998; Cronen et al., 2005). Thus teachers have few opportunities to keep up-to-date with recent research practices. In fact, many of them may not have even been trained as adult ESL teachers to begin with.

Finally the socioeconomic status and the broad diversity of the adult ESL student body offer a difficult challenge (Lasater & Elliott, 2005; Lieshoff et al., 2004). The diversity of the student body including multiple languages, cultures, and needs are another challenge for adult ESL teachers (Ullman, 1997). The students may range in age from 17 to elderly, which often presents difficulties in terms of interests as well as rates of language acquisition (S. Krashen, Long, & Scarcella, 1979). Many students come from Latin America; however, in a typical adult ESL classroom there may also be students from Asian, African, Europe or any other non-English speaking country in the world (Lasater & Elliott, 2005). Each student brings a different culture, and possibly a different language as well as different linguistic challenges. In addition, there is a high turnover rate among students due to economic factors such as job loss or relocation, so the classes are constantly changing both in enrollees and classroom size (Cronen et al., 2005). The

high turnover rate makes it difficult for a teacher to make long term plans for the class or to conduct ongoing assessments.

Adult ESL students have a wide range of needs and expectations for their education (Brickman & Nuzzo, 1999; Florez & Burt, 2001; Knowles, 1973). Some come expecting that learning English will help them gain access to a better education. Others hope to improve their English to get job promotions, while others may believe that learning English will improve their ability to integrate into and participate with the community (Brickman & Nuzzo, 1999; Florez & Burt, 2001; Lieshoff et al., 2004; Reid, 1997). Finally some immigrant students never learned to read and write in their native language and come seeking to develop basic literacy skills (Burt, Peyton, & Adams, 2003).

With high demand (which causes crowded classrooms), dismal funding, broad expectations in academic and social knowledge, and the diversity of classroom populations, it is surprising that adult ESL teachers experience any successes. However, there are many teachers who are consistently able to help their students make progress in acquiring English. Strangely enough these teachers are not always those with the most education in Adult ESL nor are they always the teachers with extensive experiences in adult ESL (Borg, 2003). Indeed, some adult ESL teachers are simply more successful in supporting students in learning English. Since neither education or experience seem to distinguish more successful from less successful teachers, Borg (2003) has suggested that differences in the Pedagogical Knowledge adult ESL teachers have available for teaching or the ways in which they think about teaching may account for this difference. Therefore, a key purpose of this study is to access the pedagogical knowledge of more successful teachers and less successful teachers to attempt to account for some of the differences in their relative success in developing language skills in their adult ESL students.

Adult ESL Teacher Knowledge

In his review of teacher cognition in language teaching, Borg (2003) noted several studies that have attempted to identify aspects of teacher cognitions in the classroom. A few studies found that teachers reported thoughts focused on the cognitive processes that facilitated learning. Teachers also reportedly had concern for managing language such as how vocabulary is explained and creating contexts for meaningful use of grammar (Gatbonton, 2000).

Borg's (2003) review reported that teachers' thoughts dealt with the need for teachers to ensure student understanding and motivation as well as managing them as students in a classroom setting. In a series of studies which used stimulated recall to capture adult ESL teachers' pedagogical knowledge, Gatbonton (2000, 2008) reported that adult ESL instructors were most concerned with the understanding and motivation of their students. Another study reviewed by Borg (2003) directly contradicted Gatbonton's (2000) study and reported that inexperienced teachers were not concerned with language or students but with pacing and timing of lessons as well as providing quality teacher talk (Borg, 2003).

In examining the research on the thinking of K–12 teachers, Clark and Peterson (1986) developed a model of teachers' thought processes (see Figure 1). This model presents two domains. The first is *Teacher's Thought Processes* which includes teacher planning, teacher's interactive thoughts and decisions, and teachers' theories and beliefs. The second domain is the teachers' actions and their observable effects. This includes three categories as well: Teachers' classroom behavior, students' classroom behavior, and student achievement. Clark and Peterson argue that there is a reciprocal relationship between teachers' thought processes and teacher actions and their observable effects. Both of these cycles are in turn influenced and modified by outside constraints and opportunities.

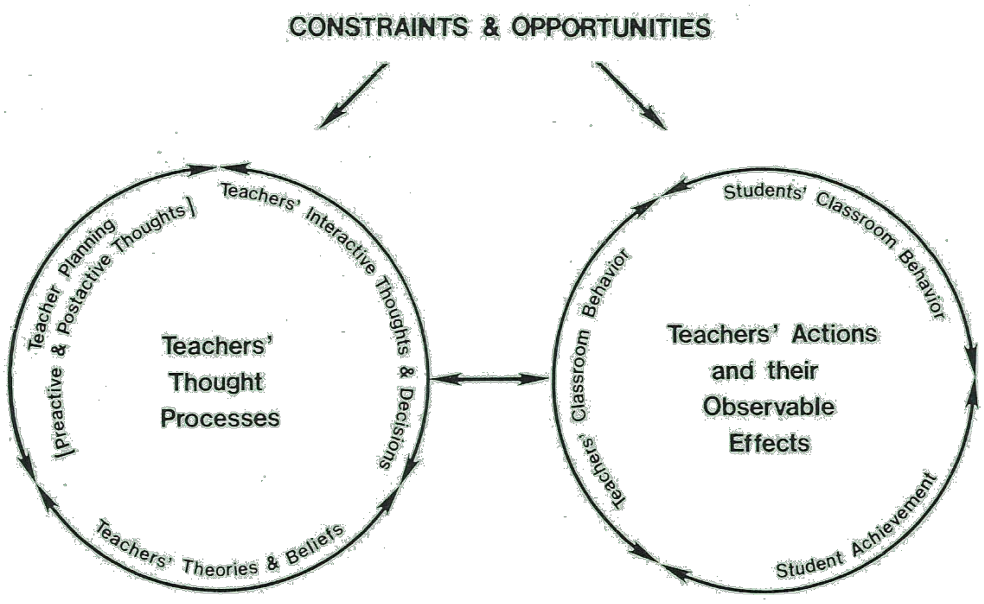

Figure 1. A model of teacher thought and action. The two circles represent two domains in the process of teaching. Each domain is made up of three categories of each domain. These categories interact with one another as well as the adjacent circle. Both circles are in turn influenced by outside constraints and opportunities. The first circle represents the thinking of teachers and thus is difficult to quantify and study. The other represents the observable actions and effects of teaching and thus is much more easily quantified. Reproduced from "Teachers' thought processes," by C. M. Clark and P. L. Peterson, 1986, in M. C. Wittrock (Eds), *Handbook of research on teaching*: third edition, p. 257. Copyright 1986 by Macmillan Publishing Company.

Clark and Peterson's (1986) model suggests that teacher's thought processes impact their behavior in the classroom. As a result, the current study will focus more explicitly on teacher's thought processes, but in doing so it will also collect observational data about teacher actions. The three major categories of teacher knowledge from Clark and Petersons' (1986) model include (a) planning, (b) interactive thoughts and decisions, and (c) theories and beliefs. Clark and Peterson's model indicates that if researchers are to develop a complete representation of teachers pedagogical thoughts they need to capture the thoughts teacher have during planning *and* teaching. The model suggests that the plans teachers make for a lesson are influenced by

their reflection on yesterday's lesson and the post planning today will in turn influence tomorrows lesson planning.

In the field of Adult ESL education, some research has been done in regard to the interactive thoughts and decisions of teachers, the second category in the domain of teachers' thought processes (Borg, 2003; Clark & Peterson, 1986; Gatbonton, 2000, 2008; Mullock, 2006). Three studies in particular demonstrate that using stimulated recall it is possible to access the verbal reports of the thoughts of adult ESL teachers using stimulated recall (Gatbonton, 2000, 2008; Mullock, 2006). In using stimulated recall, Gatbonton looked, first, at experienced teachers (2000) (results reported in Appendix A), and then, reported on research from novice teachers as well (2008) (results reported in Appendix B). Mullock (2006) also looked at the contrast between novice and experienced teachers (results reported in Appendix C).

Gatbonton (2000, 2008), in comparing expert experienced teachers with highly prepared novice teachers, found that both sets had many similarities. Of the 21 categories that emerged from the data of experienced and novice teachers, 20 of the categories were identical according to Gatbonton (2008) This indicated that the thoughts of both novice and experienced adult ESL teachers were quite similar. The difference in in the pedagogical thoughts of these two populations of teachers showed up in the frequency counts. For example, novice teachers reported noticing student reactions much more frequently than did experienced teachers. Furthermore, the overall trend was that novice teachers tend to report more thoughts than experienced teachers. (For a breakdown of the specific differences see appendices B & C).

Mullock's (2006) results were in many respects similar to Gatbonton's (2000, 2008). She found that beginning teachers had more pedagogical thoughts per minute than more experienced teachers. She also found that the most frequent types of thoughts focused on L*anguage*

Management and the second most frequent thoughts were on *Knowledge of Students.* Surprisingly, Mullocks' study seemed to confirm Gatbonton's (2000, 2008) findings that while inexperienced teachers had a larger number of thoughts, the topics or categories of those thoughts were very similar to those of experienced teachers. Her results were similar to Gatbonton's (2000, 2008) results in that there were notable differences between the reported thoughts of the novice and experienced teachers. In contrast to the experienced teachers in her study, Mullock found that the novice teachers in her study focused primarily on *knowledge of students.* This finding is different than some research on K–12 novice teachers which found that novices tend to focus on their own behaviors rather than those of their pupils (Kagan, 1992; Mullock, 2006).

The interesting difference between the three stimulated recall studies (Gatbonton, 2000, 2008; Mullock, 2006) was that b*eliefs* and *decisions* were not reported as frequently in Mullock's (2006) study as they were in Gatbonton's (2000) . Mullock hypothesized that this may have resulted from cultural differences between her participants and those in Gatbonton's (2000) study. Gatbonton's (2000, 2008) teachers were Canadian teachers teaching adult ELL students, who had immigrated to Canada permanently, while Mullock's (2006) participants were Australian and they were teaching international students (Gatbonton, 2000, 2008; Mullock, 2006). Mullock (2006) noted that the thinking of the teachers in her study could be categorized by six dominant topics of pedagogical thoughts: (a) *Language Management*, (b) *Knowledge of Students*, (c) *Procedure Check*, (d) *Progress Review*, (e) *Note Student Reaction and Behavior* and (f) *Affective*. Gatbonton (2000) reported two additional categories: (g) *Decisions* and (h) *Beliefs*.

Other studies (Bailey, 1996; Richards, 1998; Smith, 1996; Ulichny, 1996) examined how teachers' decisions were influenced by their planning and beliefs. Though none of these studies actually collected data on teachers' thoughts during planning, it is pertinent to note that these studies reported that teacher planning and especially decisions to deviate from those plans were based on several key principles. Ulichny (1996) for example found that teachers whose beliefs indicated they planned to promote learner centered teaching found that as a result of classroom dynamics the teacher moved to a more teacher centered lesson. Each of the studies, in fact, indicated that teachers modified their lesson in response to student motivation or affective state (Bailey, 1996; Richards, 1998; Smith, 1996; Ulichny, 1996). The pedagogical thoughts of the teachers in these studies included serving the common good, promoting students' involvement (Bailey, 1996) and teacher factors such as forgetting to bring key resources to class (Smith, 1996). Borg (2003) concludes that overall "Teacher cognition research shows that such departures [from the lessons] are the result of the constant interaction between teachers' pedagogical choices and their perceptions of the instructional context, particularly of the students, at any particular time" (p. 94). In other words, teachers are constantly thinking and during instruction make decisions to deviate, often times drastically, from their plans.

Pedagogical Knowledge Base

Research on the idea that a teacher's mental life (D. Freeman, 2002) could influence instruction and teacher behavior in the classroom only dates back to the late 1970's (Borg, 2003; D. Freeman, 2002; Walberg, 1977). Lee Shulman (1986) was interested in the categories of teachers' thoughts that were important to teaching. His Analysis identified both pedagogical knowledge and pedagogical content knowledge. He used these terms to refer to teachers' knowledge of "the ways of representing and formulating the subject that make it comprehensible

to others" (p. 9) in other words, the knowledge that teachers have which enables them to teach their subject. Teachers know which concepts are difficult or easy, what is age appropriate for their pupils, and how to overcome misconceptions or misunderstandings of their students. This knowledge emerges from the combined experiences of the teacher from their early years as a student, through their teacher preparation and practicum and is developed throughout their teaching lives. Shulman proposed three types of knowledge teachers have: content knowledge, that is, knowledge of the subject matter as a construct for educational purposes, general pedagogical knowledge, and pedagogical content knowledge. In other words, pedagogy applied to a specific content, in this case, knowledge of how to teach English. For the current study, the three types of knowledge will be considered collectively as pedagogical knowledge since this is how they are conceptualized in adult ESL teacher research in this area (Borg, 2003).

In ESL, the earliest attempt to identify the thought processes of instructors was in 1976. In the most recent review of this research Borg (2003) examines 64 research studies that have attempted to answer key questions: (a) what do adult ESL teachers have cognitions about? (b) How do these cognitions develop? (c) How do they interact with teacher learning? And (d) How do they interact with classroom practice? Clark and Peterson's (1986) model on teacher's thought processes helps to illustrate how the thought processes of teachers influence, and are in turn influenced by the teacher's actions and their observable effects in the classroom. They argue that these aspects of teachers thinking are characterized as planning, interactive thoughts, and theories and beliefs. Various studies included in Borg's (2003) review touch on each of these aspects in some form or another.

Borg (2003) explains in his review of ESL teacher cognition that understanding the pedagogical knowledge of adult ESL teachers is important to better understand the teaching of

ELL students because teacher cognition is the "unobservable cognitive dimensions of teachers – what teachers know, believe, and think"(p. 81) and it forms the basis for teacher action. Studies of the importance of using a cognitive framework in understanding teaching have been undertaken in mainstream teaching. Borg argues that such studies have established that "teachers are active, thinking, decision-makers who make instructional choices by drawing on complex, sensitive networks of knowledge, thoughts, and beliefs" (p. 81).

Gatbonton's (2000) study is one of the important examples of such research. Her study looked at the patterns of pedagogical knowledge that operate when experienced ESL teachers teach, and whether these patterns of thought occur consistently in the thinking of experienced Adult ESL teachers as they teach. Her study provides supports for the idea that teachers do operate out of a pedagogical knowledge base. In it she explores the thinking of nine experienced successful teachers to see if she could first access the thoughts that teachers had while they were teaching and second uncover patterns in how these teachers thought. Finally, the study compared the teachers' categories of thinking to determine whether there was consistency among the categories of thought that experienced teachers reported during their teaching. Gatbonton's (2008) later study used similar questions but her research participants were novice teachers. Since her earlier study established that experienced teachers shared categories of pedagogical knowledge, she now attempted to use the categories of pedagogical knowledge from her earlier study to code the categories of pedagogical knowledge present in the thinking of novice teachers. She focused specifically on the frequency of the categories in the thinking of novice teachers. While Gatbonton (2000, 2008) reported categories and their frequencies, she did not explore the patterns and interrelationships in teachers' thinking during their in-flight thoughts, in relationship to their practices while teaching or their planning for teaching. These are areas of interest that

the current study attempted to report on by including recordings of the teachers' reported thoughts in planning and by including follow up questions after the teachers had reported on their thoughts while teaching.

Mullock's (2006) study, a replication of Gatbonton's (2000) study, examined the thinking of four teachers—two novice and two experienced—in order to explore more clearly the contrast between expert and novice teachers' pedagogical knowledge. The students of the teachers in Mullocks' study were all international students. This population of students composes only one segment of the Adult ESL population. Mullock's study sought to provide further evidence of Gatbonton's findings about the existence and consistency of the categories of Adult ESL teachers' pedagogical knowledge. This would allow these researchers to argue that TESOL knowledge was sufficiently specialized to warrant professional status and could be a useful tool for guiding the development of Adult ESL teacher education. However, their studies treated experienced and novice teachers as if they were equally successful and thus did not distinguish those who were more or less successful in teaching adult ESL students.

Indeed, Borg's (2003) review, which draws on this research and connects it to research done on teachers of ELL students, identifies four areas that influence teacher cognition: (a) schooling, (b) professional coursework, (c) contextual factors, and (d) classroom practice. Schooling, he argues includes a teacher's experiences attending schools and being educated in classrooms. Past experiences with schooling influences both teachers' early cognitive development and their initial beliefs about what constitutes teaching and what instruction should look like. He further argues that from their schooling experiences, teachers develop beliefs about what it means to teach and to be a teacher. These findings are similar to other work on teacher

thinking (e.g. Clark and Peterson, 1986). Such research argued that the past educational experience and training impact teachers' pedagogical knowledge.

For most adult ESL teachers, their past education experience and training may include experience in learning a foreign language, but unlike elementary or secondary teachers, initial teacher preparation can account for much of their past experience. If they were actually trained in ESL, it might also include preparation in master's coursework as well, since most TESOL programs are at a graduate level (Crandall, 1994). It would most likely not include on-going professional development as adult ESL programs rarely offer such development opportunities (Crandall, 1994; Cronen et al., 2005; Van Duzer & Florez, 2003). Contextual factors, which include the school, administration, expectations, students' ages and abilities, curriculum, and class size can also limit or expand teachers' thoughts about what is possible in teaching and what teaching in this setting entails. In addition, teachers learn from their experiences with their own classroom practice. Thus, their knowledge will be based in their experience as teachers. This includes their past experiences as a teacher as well as their ongoing experiences that start with practicum experiences from their student-teacher days and continue in the day by day in-class instruction with students (Borg, 2003).

Clark and Peterson's (1986) model identifies a third category in teachers' thought processes: teachers' theories and beliefs. Borg (2003) labels this category, teachers' thoughts and beliefs. This difference between theories or thoughts and beliefs can be very difficult to identify. Borg reported that when studies attempted to divide pedagogical knowledge between beliefs and knowledge, researchers indicated that "in the mind of the teacher, components of knowledge, beliefs, concepts, and intuitions are inextricably intertwined" (Verloop, Van Driel, Miejer, 2001 as cited in Borg, 2003, p. 86). For this study distinctions between knowledge/theory and beliefs

will be based on Pajares' (1992) distinctions: "belief is based on evaluation and judgment; knowledge is based on objective fact" (Pajares, 1992, p. 313).

Stimulated Recall

Stimulated recall is a form of verbal reporting on cognitive processes. Ericcson and Simon (1984) claim that verbal reporting can give a close approximation of the actual cognitive processes a subject engages during a task. The most accurate form of verbal reporting occurs when participants are asked to verbalize their thoughts while performing a task. As teachers are already engaged in speaking and instructing while teaching this verbalization would be impossible, however the second most effective method is to lay a memory trace while the subject is performing a task (such as a videotape of the teacher episode). This creates a way for the participant to easily remember the actions they perform. Researchers then ask participants to report the thoughts they had at the time. This think aloud can be augmented with a retrospective report by asking participants to access the memory and report their thoughts. By recording the instructional session the researcher provides a stimulus that supports participants in accessing their memory trace and allows the teacher to report the thoughts they had while teaching (Ericcson & Simon, 1984; Gatbonton, 2000, 2008; Mullock, 2006). The current study videotaped the adult ESL teacher while they were instructing their class, and then immediately following the videotaping there was a talk-aloud session where participants viewed the recording and talked about the thoughts they had while teaching. After viewing the videotape, participants were asked to expand further on their thoughts, knowledge and beliefs.

Relationship to this study. Three studies fundamentally influenced the formulation of the initial research question and design of this study (Gatbonton, 2000, 2008; Mullock, 2006). These studies established that adult ESL teachers do have pedagogical thoughts as they instruct

their students and these thoughts can be accessed. These studies also provide evidence that teachers' pedagogical thoughts can be used to distinguish between teachers with different levels of experience. All three studies used stimulated recall to capture and analyze adult ESL teachers' pedagogical thoughts.

Review of Gatbonton and Mullock. The current study built on the works of Gatbonton (2000, 2008) and Mullock (2006), but it also differed from them in many areas. While the previous studies accessed and categorized the interactive thoughts of successful novice and experienced teachers, they did not capture the thinking of these teachers during lesson planning. They did not consider their interactive thinking in relation to their actions in the moment of instruction. And finally they did not consider teachers' post reflection thinking.

Gatbonton. Studies done by Gatbonton (2000, 2008) were important in establishing that experienced teachers accessed similar categories of teaching knowledge as they engaged in teaching and that data from novice teachers could be coded using the same categories as those used to capture the thinking of experienced teachers. Gatbonton's second study focused only on novices. In these two studies, she sought and identified patterns in the categories of thought processes of adult ESL teachers and she provided lists of domains of knowledge. She also reported the frequencies with which they were present in the verbal recalls of the teachers. Though valuable, because they establish that categories of the thinking of teachers with varying levels of experiences during the teaching of Adult ESL teachers were similar across a set of teachers and that using a stimulated recall protocol could provide access to the pedagogical knowledge of the teachers, these studies did not take into account the interrelationships between knowledge and teacher action between their planning their instruction and their post reflection.

Gatbonton's (2000, 2008) research is further limited since she did not explore the overarching patterns or relationships across the categories of knowledge in teachers' knowledge in teaching.

Mullock. The results of Mullock's (2006) study also indicated that it was possible to access the reported thoughts of the teachers. Her findings on the categories and frequencies from the teachers' talk-aloud sessions were similar to Gatbonton's (2000, 2008) with a few exceptions (see Appendix C)

Rather than making understanding of adult ESL teachers' knowledge clearer, these three studies have instead raised further questions. Mullock (2006) found that beginning teachers reported more pedagogical thoughts per minute than more experienced teachers. She also found that one of the most frequent categories for the teachers, even the first year teachers, was focused on knowledge of students. This counters literature in public school teacher development that argues beginning teachers are in survival mode and mostly self-focused (Kagan, 1992), However, this finding is similar to Watzke's (2007) finding for foreign language teachers that in the first two years they had a "heightened and sustained concern for student learning and well-being" (p. 67). It also may be explained that experienced teachers make many decisions automatically and thus are not cognizant that they are even thinking or that their actions are being influenced by their thoughts or beliefs (Ericcson & Simon, 1984).

Limitations with Gatbonton and Mullock studies. There are several limitations with the Gatbonton (2000, 2008) and Mullock (2006) studies. First, only highly successful or highly recommended teachers were studied. There are at least two dimensions of differences between teachers that provide insight that can guide decisions about teacher education and teacher professional development. One dimension of difference is experience or the difference between the thinking of beginners and those who are more experienced. A second dimension is the

difference in the efficacy of the teaching or the contrast between teachers who are more or less successful in supporting student learning. While the Gatbonton and Mullock studies were helpful in exploring the first dimension they provide no insight into the difference between more and less successful Adult ELL teachers. The current study therefore will specifically focus on the differences in the thinking of more successful versus less successful teachers.

A second shortcoming of Gatbonton's (2000, 2008) studies was the use of students unfamiliar to the instructors. In her studies Gatbonton created classrooms of students who were unfamiliar to the teacher. Since, as Bullough (2008) has argued, teaching is contextual and relational, using students other than the students teachers normally teach may limit or alter the thinking of these teachers, since they do not have any history with the students and are not expecting to build on the teaching in subsequent lessons. Mullock (2006) addressed this situation by having the teachers teach their own students, but more studies are needed to help establish Mullock's findings.

A third limitation was that all of the teachers included in both studies were well educated in Adult ESL with no teachers representing other educational backgrounds. Yet, from the research we know that typical Adult ESL schools employ teachers from various educational backgrounds (Cronen et al., 2005).

A final shortcoming was when and how the teachers reported their thoughts on their instruction. The teachers in these three previous studies reported their thinking only in a stimulated recall of a recorded lesson. The teachers, however, were not asked to think aloud either about their planning for teaching nor to evaluate and reflect further about their thoughts about their teaching holistically. In addition, the researchers did not attempt to look at the relationship between teacher thinking and the observable actions about which they were

thinking. The Gatbonton (2000, 2008) and Mullock (2006) studies recorded and analyzed only the thinking of teachers during a stimulated recall of their lessons without accessing thinking that would allow understanding of and insight to Clark and Peterson's (1986) conception of teacher knowledge. Post-reflection could help researchers better understand the beliefs and knowledge base of the teachers.

To look fully at a teacher's pedagogical knowledge, we must explore the thoughts and beliefs of the teacher during planning and teaching and also after they complete their teaching. It is not enough to look only at the thinking of the teachers in the moment of instruction. Teachers think about their students and their practices while they plan for instruction as well as when they are reflecting on their lessons (Clark & Peterson, 1986). Having the teachers talk aloud about their planning may have and probably did alter the lesson itself. However, the purpose of this study was not to evaluate the teachers' performance in the classroom; their competency had already been established from the observations and student outcomes. Instead, the study attempted to maximize teachers' access to their thinking by stimulating more and less successful teachers of adult ESL students to report their thinking, before, during and after teaching.

Research Question

The research question which guided this study is "What are the differences in the pedagogical thoughts of more and less successful adult ESL teachers during planning, teaching, and reflection?"

Chapter 3

Methods

The School

This study was conducted at a small private Adult ESL school in Western USA. The school teaches both international students with student visas as well as local residents with different statuses as immigrants that have limited English proficiency. There are two separate schedules: morning and evening. The morning schedules combine both international and resident students together in the same classes. The evening classes are primarily local students. At the time of the study, there were 11 teachers at the school. Most of them were new to the school. Four of these teachers were observed and recorded to better understand their pedagogical knowledge concerning the teaching of local immigrant students as the adult immigrant population has been underrepresented in research and is a population with many needs (Brickman & Nuzzo, 1999; Cronen et al., 2005; Dozier, 2001; Reid, 1997).

Participants

Participants for this study included four adult ESL instructors, two were considered highly successful and two were considered less successful. The instructors were selected using both convenience sampling and purposive sampling (Johnson & Christensen, 2004). The sampling was convenient because the teachers were selected from a school where the researcher had previously been employed, and it was purposive because the teachers were chosen for their educational backgrounds, years of teaching experience, and their success as a teacher. Teacher success was determined from formal teacher observation reports, student feedback reports, retention rates, student attendance, and student grade point average in that particular class. The educational background differed based on their backgrounds in TESOL education (have they had

education in TESOL) and experience (have they had much experience teaching Adult ESL students). (See the table 1 for a comparison of the characteristics of the four teachers).

To determine teacher success, data supplied by the school was analyzed from the previous two years of employment. However, not all of the teachers had complete files since the teachers had various years of data from the school. The first three teachers had a lot of data to support their actions while Teacher 4 had very little as she was relatively new to the school. Another drawback was that the researcher was unable to use student exit exams as a measurement of teacher success since they were used to place students and were often anonymous and did not even include the teacher's name. Also the students often had classes from multiple teachers so it would be difficult to determine which teacher to give credit for the success of the students.

Five criteria were used to determine how successful the teachers were in their classroom. Data for this determination were supplied by the institution where they taught. First, formal teacher observation reports made from the previous two years at the school. The observers included administrators at the school one of whom was the researcher for this study. Second, student feedback reports, these were administered each semester to the students to allow them to rate their classes and instructors. Third, retention rates were used since in adult ESL the student body changes rapidly and students often stop coming for various reason including the effectiveness of the class. Fourth, student attendance was used for a similar reason. Finally student grade point average was used. Though this is not the most ideal indicator of student success since the teachers themselves give the grades, but because adult ESL teachers had no special incentive to pass or fail the students and since grades from this setting are seldom used to gain access to the next level of education it is most likely an accurate measure of student

Table 1

Characteristics of the Four Participant Teachers in this Study

More Successful Teachers					
Teacher 1			Teacher 2		
Education	Experience	Years of Exp	Education	Experience	Years of Exp
TESOL	Adult ESL	15+	Elementary	Elementary & Adult ESL	20+
Less Successful Teachers					
Teacher 3			Teacher 4		
Education	Experience	Years of Exp	Education	Experience	Years of Exp
TESOL & Elementary	Adult ESL	6	TESOL	Adult ESL	<1

Note: Years of Exp refers to total years of teaching experience including teaching experience outside adult ESL.

performance in the class. For each of the criteria the teachers were graded on point system of 1–4. (See Figure 2 for a comparison of the four teachers). It is important to keep in mind that none of the teachers were failing. Even the low teachers were retaining at least 70% of their students as well as receiving evaluations high enough to retain their employment. The grades assigned to the teachers indicate instead which teachers were more successful and which teachers were less successful.

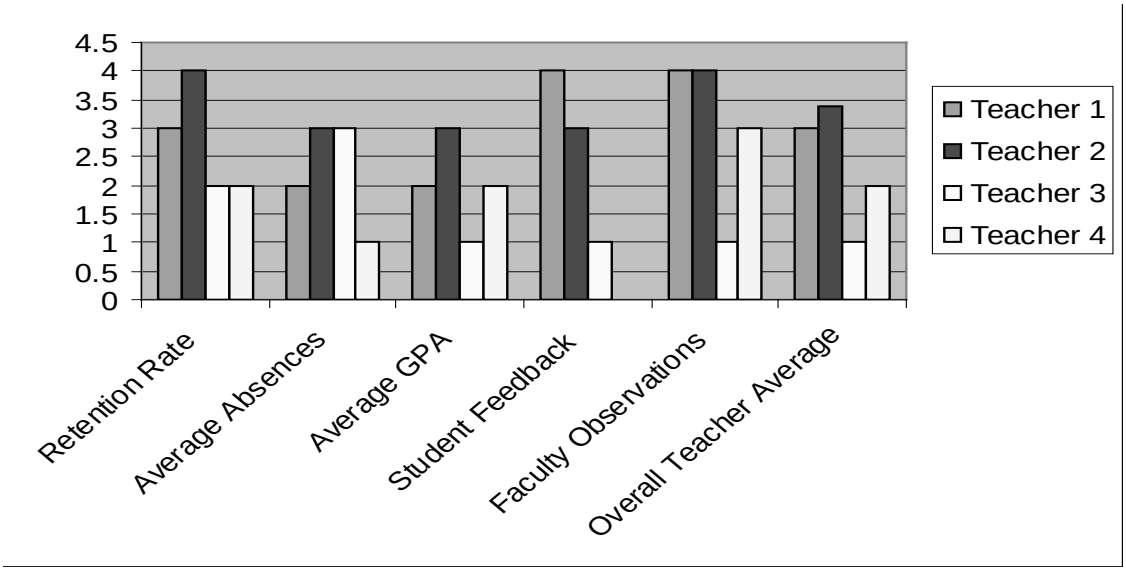

Figure 2. Comparison of the four participants showing the five criterions which distinguished the more successful teachers from the less successful teachers. Each category was rated with a possibility of 4. The final category shows each teacher's overall average. Teacher 1 and Teacher 2 were shown to be the more successful while Teacher 3 and Teacher 4 were less successful. The Empty column under student feedback for Teacher 4 is because she was so new that no student feedback had been collected for her.

Teachers. The participants were four female teachers with differing backgrounds in education as well as differing years of adult ESL teaching experience. Teachers 1 and 2 were both determined to be more successful, while Teachers 3 and 4 were determined to be less successful. The teachers were studied preparing for, teaching and reflecting on the actual classes

that they normally taught. They used the regular curriculum with which they were familiar. Included below is a synopsis of each teacher and course she taught for this study, followed by an explanation of the participant students.

More successful Teacher 1. Teacher 1, considered a more successful teacher, has both formal education and many years of experience as a teacher of adult ESL students. She has a master's degree in TESOL and has taught adult ESL for over 20 years.

Teacher 1 teaches the TOEFL preparation class. It is an advanced level class which prepares students to take the Test of English as a Foreign Language (TOEFL). She teaches both in the morning and in the evening. The morning students are primarily international students. The evening students are usually immigrant students. Since the current study focuses on immigrant students it was determined that her night class should be recorded. Normally there are a dozen or so students in her class, however at the time of this study, student enrollments were down and so there were two students enrolled in her class. Both were immigrants from Chinese speaking countries.

The unit she was teaching focused on organizing paragraphs and the difference between writing about preferences and writing about advantages. The lesson the researcher observed gave a review of advantages and then focused on preferences.

More successful Teacher 2. Teacher 2, also considered a more successful teacher, has experience teaching adult ESL, but her teacher training was for elementary education. She taught over 20 years in elementary school and came to adult ESL after she retired from public schools. She has no formal training in adult Education or TESOL education.

Teacher 2 teaches Level 2 Grammar and Level 4 Integrated Skills. She teaches only in the morning and her students are a mix between immigrant and international students. She had 7 students in her class, but only 5 attended on the day of the study all of them were Hispanic.

The unit she was teaching focused on the English language, its origins and nuances. The day's lesson was about idiomatic words and phrases in English, as well as homonyms and puns. She decided to start her lesson with a tongue twister activity, which is the portion she wanted me to record.

Less successful Teacher 3. Teacher 3, considered one of the less successful teachers, has both formal training and experience in teaching adult ESL. She has an elementary teaching certificate and a TESOL endorsement. She taught in public schools for a short time and then changed to adult ESL. She has taught adult ESL for over 6 years.

Teacher 3 teaches level 1 grammar and level 2 integrated skills in the morning and level 2 in the evening. Like Teacher 1 her evening classes were mostly immigrant students, while the morning classes were a mix of immigrant and international, so it was determined that an evening session would be the best time to record. Her evening class had 5 students in the class, however on the night of the study only one student showed up; he was an older man from Eastern Europe. A new date for a re-recording on a different night was considered, however, the teacher indicated that typically only 1 or 2 students attended class each night, so the recording went ahead as planned.

She was teaching a unit on medical terminology. Specifically—how to fill prescriptions and purchase medicine at a pharmacy, with a grammar component targeting the use of "should", "have to" etc. She chose to have the first portion of her lesson recorded where she reviewed vocabulary for the lesson and introduced some new terminology. In this portion of her lesson she

had a stack of flashcards with pictures of various medical issues. She planned that students would look at the pictures, ask about the problems and give medical advice. When only one student attended class, she played the part of a second student, and she and the one student went through a dozen or so flashcards together.

Less successful Teacher 4. Teacher 4 is also considered one of the less successful teachers. She has recently received her bachelor's degree in teaching English with a minor in TESOL and has been teaching at the school for under a year.

Currently she teaches level 1 only at night. She previously taught level 5 during the morning. Because of the recent change in assignment the lessons are unfamiliar to her. She has taught sufficient sessions of this course, however, so that the students were all known to her. There are six students registered in the class but only three, all Hispanics, participated the night of the study.

The unit she was teaching was on the alphabet and filling out simple forms. She requested that video recording focus on an initial review of the alphabet with flash cards followed by a short question and answer dialogue for the students to practice with each other.

Students. Though not included as participants in the study, it is important to recognize and understand that the students in the classroom were also part of this study. The students at the school come from many parts of the world, and there are at least 15 possible languages present at any time in the school. The local immigrant population, which is the focus of this study, is composed almost entirely of Latinos with the majority of students coming from Mexico, although in one class, the students were all from China. The immigrant students in the classrooms, like their teachers, have diverse educational backgrounds. Some are highly educated with advanced degrees. Many were professionals in their home countries before immigrating to

the United States, but others have not had much education at all and are barely literate in their home language. The immigrant students live in the area and are generally representative of the larger immigrant population in this community. Their ages range from 18 to 60 plus, but the majority were in their twenties or thirties. Many have families either here in the states or back in their home countries. Some are documented and others are not.

The review of literature indicated that the adult immigrant population is underserved the students in the classrooms used for this study were drawn from the immigrant population, though the actual classroom make-up may have included both international and local students. International students were offered alternative work to complete if they did not desire to attend the session when the recording took place. Each of the teachers and students participating in the recording filled out a release form indicating that they understood they were participating in a research study. Pseudonyms are used to identify all participants in the study.

The Researcher

The researcher was also the observer for this study. He is 33 years old. He is a non-immigrant native English speaker. He graduated with a bachelor's degree in History Teaching and a minor in TESOL. Initially, he worked as a substitute teacher and a night instructor for a local adult ESL literacy program. He then worked for four years as a high school ESL instructor and department head. Most recently, he was the site director of the small private adult ESL institution in the West serving both international and resident students where this study took place. As site director, he also responsible for developing the curriculum for the school, supervision of personnel and morning and evening classes for both international and resident students.

Procedures for Data Collection

The data collection took place in four steps and included four sets of data. (a) transcribed recordings of teachers' think alouds about their planning (teachers used the curriculum provided by the school as lesson plans), (b) transcriptions of classroom recordings, (c) transcribed recordings of stimulated recall talk-a-louds, and (d) transcribed follow-up questioning sessions. Following is an identification of each step of the data collection process, a reason for the step, and an explanation of how data was collected at that step.

Think aloud reports on planning. Evidence of pedagogical knowledge was first collected from teachers' think aloud reports of their planning (data taken from this step are labeled *P*). Clark and Peterson (1986) observed from the research that a teacher's thought process could be broken into three categories, the first category is planning. This includes both pre-active and post active planning as the process is cyclical in nature. In other words, the post planning done today influences the preplanning of tomorrow. They stated, "Research on teacher planning provides a direct view of the cognitive activities of teachers as professionals" (p. 267). Capturing teachers' thoughts in the planning process added a whole new set of data missing from similar previous studies that helped capture the pedagogical knowledge the teachers possessed.

Each of the teachers at the school is provided with modules that outline activities, vocabulary words, and expected outcomes for each day. The teachers are expected to use the materials as well as build on, expand and modify them for the specific needs of their students. The participants each used the regular lessons which they were expected to use from the provided modules for the class recording. The teachers were told beforehand which day they were going to be recorded, so they could prepare lesson plans from the modules.

In this study, the teachers brought their lesson plans. They brought these school curriculum documents as their P documents. Because the adjustments teachers made to the plans were captured not in written forms, but in the P interview, the researcher did not include an analysis of the P materials terminology. The researcher met with each participant before they taught their lesson. In this meeting teachers were asked to talk aloud about what they planned to do in class and what had influenced their decisions in their planning. The researcher began the session by explaining purposes and the process of the study. The teachers were asked to talk about their lesson plans. Each teacher explained step by step what she was going to do and her thoughts about why she had chosen specific activities for this class session. The teachers were encouraged to talk as much as possible with minimal interruptions. The researcher interrupted teachers only when he needed clarification. The teacher then chose a section of the lesson that each felt would typify her teaching. The meeting was recorded and later transcribed for coding.

Class recordings. The second set of data was the recording of actual instruction from their classroom (data taken from this step are labeled CR). The researcher arrived before each class was video recorded. The videotaping equipment was set up in a corner of the classroom well before the beginning of class. The researcher distracted as little as possible and oriented the camera so that it focused mainly on the teacher. The researcher started recording the lesson at the point identified by the teacher as the segment that they felt would best typify their teaching. Each of the recordings was approximately 20 minutes long. They varied slightly in length since the researcher continued recording until the identified lesson segment had ended. When videotaping ended, the researcher left the classroom. Data from this videotaping was later transcribed for coding.

Stimulated recall. For the third set of data, a stimulated recall of the recorded segment was conducted with each teacher directly following their class session, or the next day for teachers who taught at night (data taken from this step are labeled SR) based on difficulties reported by Gatbonton (2000, 2008) and Mullock (2006) in that the amount of time between when the recording was made and when the talk aloud was conducted may have affected the participants' memory. As Ericsson and Simon (1980) explained, "What is remembered, and how well, will generally depend critically on the interval between the moment of acquisition and the moment of recall" (p. 218). The longer the time between the action and when it is reported, the more details from the event may be forgotten or altered. Therefore, the researcher conducted the SR as soon as possible immediately following the class session or the next day at the latest after the lesson was taught. Even though the SR was recorded the same day or the next day each of the teachers had points when they were unsure.

Before the SR, teachers were given an opportunity to practice thinking aloud using a training video the school had produced as the stimulus. The teacher was asked to talk about what she thought the trainer was thinking while he was teaching. This pre-activity supported teachers in talking more freely during the SR of their own teaching.

For the SR, the audio recorder was started and instructions were given. Then each teacher's reported thoughts while teaching were recorded. When they went for a period of time without commenting, they were prompted, asking them to recall their thoughts and continue talking. While they were talking, the researcher also took notes on impressions, words that stood out, themes he saw, and questions about their instruction. During the time participants were talking aloud about their own teaching segment the researcher commented only when a participant quit speaking for an extended period of time. At that point the researcher only

prompted the participant to report what they were thinking. These recordings were later transcribed for coding.

Follow-up interviews. The fourth set of data consists of the transcription of participants overall reflections about the lesson and their responses to the follow-up questions and probes of the researcher. This interview immediately followed the SR (data taken from this step are labeled FI). In this session, the participants were asked to first reflect on their teaching and teaching beliefs after watching themselves. Then questions were asked specific to each of the teachers from notes taken during their previous recording sessions of P, CR and SR. After answering these questions, the researcher asked the teacher to comment on their teaching theories and practices as a whole.

This post teaching holistic reflection with specific probes allowed a more complete look at the teachers' pedagogical knowledge. Both Gatbonton (2000, 2008) and Mullock (2006) found that their experienced participants reported fewer thoughts per minute overall then their novice participants. In contrast, in this study, the most novice teacher talked least. Therefore, in this study, the research sought to expand data collection beyond SR, since one possible explanation for the differences in numbers of thoughts reported is that the more experienced teachers operated with automaticity and therefore SR alone was not sufficiently powerful as a data collection technique to comprehensively gather data about experienced teachers' pedagogical thoughts (Ericsson & Simon, 1980). While this study was not concerned with how many thoughts per minute a teacher had, but was focused on the difference in knowledge that allowed teachers to be successful in the classroom. If successful teachers are operating automatically and thus in SR situations do not report enough of their thoughts, then more data is needed to allow researchers sufficient evidence to observe differences that may occur between more successful

and less successful teachers. By probing for clarification and allowing more occasions and reflection time for the participants to articulate their knowledge, the study could provide a more complete picture of their pedagogical knowledge.

Data Analysis

Before beginning the analysis, each of the recorded sessions (i.e. P, CR, SR and FI) were transcribed verbatim. The data analysis then proceeded in three steps. First, the data was selected. Second, the data was coded and analyzed, and during each phase, attention was given to validity.

Data selection. Data was selected using much broader criteria than Gatbonton (2000, 2008) and Mullock (2006) used when they selected what data would be included in their analysis. They limited their analysis to reported thoughts that met three criteria: (a) clearly instructional, (b) spontaneously offered by the teachers, and (c) occurred during the act of teaching. Everything else was eliminated. The current study, in contrast, included not only these thoughts, but thoughts on pre and post planning, thoughts reflected in their teaching, as well as thoughts that reported their knowledge and beliefs about teaching in general.

There were some aspects of the data, however, that were eliminated from the analysis. Written lesson plans, collected during the P recording were not analyzed as they were unmodified from the material that the school provided and therefore did not necessarily reflect the teachers' pedagogy. In the cases where the teacher did modify the lesson, they reported these changes during the recording of their P and so it was included in the P transcripts. The field notes or questions the researcher wrote during their CR were not analyzed as they were also all included in either the SR recording or the FI recordings. There were also clearly irrelevant comments made that did not pertain at all to the subject at hand and these were also eliminated.

When coding the data with the a priori codes from the previous studies and research on recommended practices, entire portions were codified with one code if it seemed that the thought behind it was a continuation of the previous thought and not a new one. For example, Teacher 4, when helping a student spell a word, said one letter at a time and the student repeated each letter in turn. Since the teacher may have been spelling an entire phrase, the transcription often took up large segments on the page. Instead of codifying each letter that the teacher said as separate Language Management codes, the entire segment was coded as one Language Management code.

Analysis stages. The data analysis proceeded in four stages. The first stage was the application of the initial a priori codes from previous studies done on adult ESL instructors using SR. Since in their study Gatbonton (2000, 2008) and Mullock (2006) provided categories of teacher knowledge, it seemed appropriate to attempt to chart knowledge difference on the categories from their studies. So the data was subjected to qualitative (content) analysis using an a priori "start list" (Miles & Huberman, 1994, p. 58) from Gatbonton (2000, 2008) and Mullock (2006). Later, the frequencies of occurrence of the categories were noted and compared with these previous studies.

Secondly, because of the difficulties encountered in using the Gatbonton (2000, 2008) and Mullock (2006) codes to completely capture the data in this study, the transcripts were subjected to a second analysis. For this analysis a second set of research based a priori codes were used. These codes were based on the research on best practices in adult ESL instruction.

During this second coding, codes were developed from inductive coding (Johnson & Christensen, 2004) so that all the data were codified. The frequencies of occurrence of the categories were noted.

Then a third stage of analysis was conducted wherein overarching pattern themes (Miles & Huberman, 1994) that underscored the reported thoughts of the teacher concerning their pedagogical knowledge were identified.

Application of initial a priori codes. Before coding the data, a combined list of 25 categories was compiled from the studies done by Gatbonton (2000, 2008) and Mullock (2006) and the researcher attempted to define what each of the categories meant (see Appendix D). The researcher attempted to obtain the actual definitions of the codes as they were used in the previous studies to avoid confounding and conflicting definitions, however, these studies did not provide definitions for the codes and their researchers did not respond to queries requesting this information. Indeed, one of the limitations of the previous studies was the lack of coding definitions. For example Mullock (2006) reported that as she was attempting to replicate Gatbonton's (2000) study; she had difficulty not only sticking to the same categories developed by Gatbonton (2000), but also in defining exactly what was meant by the codes (Mullock, 2006). Further, Miles and Huberman (1994) advise researchers to expect their start lists to change and develop as their research progresses. Though the lists of codes may change, the definitions of individual codes should be maintained. Borg (2003) argued that the proliferation of terms used by researchers in explorations of thinking and thought processes of adult ESL teachers has led to a "definitional confusion" (p. 3). The current codes along with definitions for each are included in the appendices of this thesis.

This initial a priori list of codes did not adequately reflect the diversity of thoughts that the teachers had. They were, at once, too limited in their scope as well as too general. For example, in the category of *Aid Comprehension (i*ntroducing or planning an activity for the purpose of helping students understand) there were examples of *Modifying the Curriculum*, e.g.

Teacher 1 commented, “I just don’t like the organization in the book, so I just kind of skip around.” *Modeling,* e.g. Teacher 4 remarked, “if they say it wrong my thoughts are just to have them repeat after me.” and *Scaffolding* e.g. Teacher 3 reported, “I am trying to review aches, sore and pain which was the vocabulary from last week. And relate that to a story that he’s telling.” In addition teachers often reported thoughts concerning other codes not included in Gatbonton’s (2000, 2008) or Mullock’s (2006) research such as *Assessment* (Teacher’s thought and/or actions are concerned with assessing student knowledge) and *Participation (*Teacher’s thoughts and actions are concerned with having students participate, especially students who are not currently participating). As a result, the researcher began creating more coding categories in order to account for the data and before attention to patterns among themes could be considered (Miles & Huberman, 1994).

After the SR data were coded, the researcher compared and contrasted the results of the coding of the thoughts of more and less successful teachers with the previous studies by Gatbonton (2000, 2008) and Mullock (2006) using as the main tool for the comparison of the codes. The number of reported thoughts per minute was not compared since the current study was not interested in the number of reported thoughts per minute. The researcher of this study did not collect or report that data.

Application of recommended practices a priori codes. In this second stage of analysis, the data was subjected to further categorization with a different a priori set of codes from research based recommended practices in adult ESL education. This set included four broad categories with each of these broken into subcategories. The broad categories were (a) Second Language Acquisition with 9 subcategories, (Brickman & Nuzzo, 1999; Clarke, 1980; Cronen et al., 2005; Devitt, 1997; Florez & Burt, 2001; Gibbons, 2002; S. Krashen, 1989; S. Krashen &

Terrell, 1983; S. D. Krashen, 1993; Lightbown & Spada, 2000; Shu, Anderson, & Zhang, 1995; Stanovich, 1986), (b) English as a Second Language (ESL) instructional strategies with 10 subcategories (Florez & Burt, 2001; D. E. Freeman & Freeman, 1994; Knowles, 1973; S. D. Krashen, 1993; Lightbown & Spada, 2000; Lytle & Schultz, 1991), (c) principles of adult education had 5 subcategories (Florez & Burt, 2001; D. E. Freeman & Freeman, 1994; Knowles, 1973; Ullman, 1997), and (d) multicultural awareness had 8 subcategories (Brickman & Nuzzo, 1999; California State Dept. of Education, 1993; Florez & Burt, 2001; D. E. Freeman & Freeman, 1994; Lytle & Schultz, 1991). (See Appendix E for details on subcategories and definitions in each of these four areas).

Utilization of inductive coding. Even with the addition of codes for recommended practices a prior list, the researcher was unable to adequately codify all of the data. In order to codify the remainder of the data, 8 additional codes were added using inductive coding (Johnson & Christensen, 2004; Miles and Huberman, 1994). (see Appendix F for details and definitions of the last 8 categories).

Development of pattern codes. In this final stage of analysis, attention was directed at combining and collapsing the codes as recommended by Miles and Huberman (1994). "Just naming or classifying what is out there is usually not enough. We need to understand the patterns, the recurrences, the plausible whys" (p. 69). Miles and Huberman further explain that researchers "know that codes will change…some codes do not work; others decay. Or the way they slice up the phenomenon is not the way the data appears empirically." (p. 61). They also explain that other codes emerge progressively and must be added to the data bank. They call this "filling in" (Miles & Huberman, 1994, p. 62). Each of these coding phenomenon occurred during the coding of the data.

After all the data had been codified using these 64 codes, the researcher attempted to recode them into more manageable pieces. Initially an attempt to collapse them globally across all the participants was performed. The researcher first removed categories that were irrelevant, or unused; 10 codes were quickly eliminated. Second, codes for categories that were obviously related such as the four codes that dealt with affect were collapsed. At this point the researcher started to see that the codes were actually pointing to thematic patterns in the teachers' pedagogical thoughts and actions. The codes could not be combined similarly for all of the teachers. For an example of the category *Questions,* Teacher 1 asked questions in order to ascertain student comprehension. Teacher 2 on the other hand asked questions in order to engage students in class discussion. The researcher abandoned collapsing the codes and instead looked for "pattern codes" (Miles & Huberman, 1994) which were more inferential and explanatory.

The data were subjected to further categorization wherein additional codes were initially added and followed by a series of reanalysis which eliminated and combined codes. This allowed the researcher to identify higher patterns of thoughts and beliefs referred to by Miles and Huberman (1994) as pattern codes. The pattern codes "illustrated an emergent leitmotiv or pattern" (p. 57) discerned from the actions, comments and reported thoughts of the participants. These pattern codes indicated overarching motivations or sets of factors that appeared to inform the participants' pedagogical thoughts, actions and comments. In this stage the researcher moved from simply classifying the pedagogical thoughts to identifying thematic units of such thoughts and patterns amongst the units.

After all the data had been codified with the a priori lists and inductive codes, the researcher attempted to recode them into more manageable pieces. Initially an attempt to collapse them globally for all the participants was performed. First, the researcher removed

categories that were irrelevant, or unused; 10 codes were quickly eliminated. Second, codes for categories that were obviously related such as the four codes that dealt with affect were collapsed to simply *Affect*. At this point, the researcher started to see that the codes were actually pointing to thematic elements of the teachers' pedagogical beliefs and practices and that the codes could not be combined similarly for all of the teachers. For an example of the category *Questions*, Teacher 1 asked questions in order to ascertain student comprehension. Teacher 2, on the other hand, asked questions in order to engage students in class discussion. The researcher abandoned collapsing the codes and instead began to develop pattern codes which were both more inferential and explanatory. For example, each teacher had examples of thoughts or actions that were categorized as Aid Comprehension. However, each teacher's reason for aiding comprehension appeared to be different. For Teacher 1 Comprehension seemed to be primary focus. For example she said, "So I was looking for an easy way so that it would be easy to explain as we reviewed it" (take from SR). When Teacher 2 was coded with Aid Comprehension, however, it was with a different theme. "If you want someone to do something, you first have to show them what you want them to do" (taken from FI). She wanted them to understand so that they would be engaged. Teacher 3 was coded with Aid Comprehension often when she used specific teaching strategies to maintain an Academic Focus. Finally, Teacher 4's Aid Comprehension thoughts attended to managing language. She said, "If they say it wrong I think I need to say it so they can say it correctly" (SR.2.15–16). After reanalyzing all of the transcripts, several pattern codes began to emerge.

The data were resubmitted to numerous analyses to explore the association between the coding themes and the motivations behind the teachers' comments. Trends and patterns began to

emerge. The method used to arrive at Teacher 1's dominant pattern theme gives a good illustration of how these pattern codes emerged.

As mentioned above, Teacher 1 had a strong category of Aid Comprehension, but as the researcher condensed them carefully, he discovered that the theme of Comprehension permeated each of the other categories. Aid Comprehension was coded highest in her data, so it was identified as a possible higher pattern theme relabeled simply, Comprehension. While attempting to find more pedagogical pattern codes, the motivation behind her coded statements, reported thoughts and actions was considered, first, with the category of beliefs. This showed a strong focus on Comprehension. 15 of the 22 times the data coded with Beliefs or 67% of stated beliefs were about how to get students to understand the learning outcomes. For example in her FI she said, "I like to start with the easy ones then the hard ones will…I can explain them better once I get to the hard ones." Explicit Instruction was her next highest coded category. Reexamination showed that 20 of the 22 (91%) instances when she explicitly taught something or talked about needing to explain something clearly, she was doing it in order for better student comprehension. An example was in her SR when she is explaining what she was thinking when she felt she had to re-teach something, "They just hadn't remembered whether to put their own [opinion] at the beginning or the end, so then I knew I would have to explain that part again." The next category was Appropriate Language and Writing. Of the 21 instances, 20 (95%) were motivated either by a desire to make her instruction more clear for the students or talked about eliminating writing that was confusing or distracting. For example, in her SR she reflected, "When I sense they are confused, then I go to the board and try to write out the sentences." The fifth highest category was Questioning. Her data was coded with Questioning 21 times. Her questioning looked at three aspects of comprehension and thus helped to solidify the definition of this pattern code. She

questioned students to review processes, she questioned to check understanding, and she questioned to check students' memory. Most of her questions came from CR: "…and you have to use good transitions. You know what transitions are?", and "So if you saw this how would you confront it", "do you remember when I told you that 'advantages' is a little different than other types of essays? Do you remember me talking about that?"

The top 24 categories for Teacher 1 were all recoded using the five pattern codes. Almost all the subsequent categories showed similar results to these first five categories. The major pattern theme supported by the other patterns codes was Comprehension. (see Appendix G for details of each category).

Data for the other teachers was reanalyzed in a similar manner. Teacher 2 focused on student participation and this focus extended beyond just Aid Comprehension, the pattern code *Engagement* emerged. These first two teachers, the two more successful teachers, were fairly straightforward in their approaches to their students and teaching them and their articulation of their goals. After the researcher began classifying them with pattern codes, each subsequent reading of the data increased the researcher's awareness of how much these two more successful teachers adhered to the patterns in their beliefs, thoughts and actions. At the same time as the researcher was coding the less successful teachers, he noticed that their thoughts, actions, and beliefs did not contain this clear straightforward articulation of goals and approaches instead their thoughts, actions, and beliefs were at times in conflict or lacked purposive thinking (see Appendices H, I, and J for details of analysis of Teachers 2, 3 and 4).

Eventually, five primary pedagogical pattern themes emerged: (a) *Academic Focus* (a focus on the teaching strategies, curriculum, and lesson plans), (b) *Comprehension* (a focus on student understanding), (c) *Engagement* (a focus on student getting students to participate, enjoy

and be motivated to learn), (d) *Language Management* (a focus on correct language performance), and (e) *Student Centered* (a focus on student needs, wants and interests).

Validation. To attend to the accuracy and reliability of coding, the researcher engaged in a series of validation steps. First, a university faculty member reviewed the codes from recommended practices ensuring that the a priori codes identified by the researcher accurately represented the research in recommended practices for adult ESL education. In addition, at each stage of the analysis she also reviewed the coding, attending to the accuracy and consistency with which codes were applied. Finally, she reviewed the researcher's transfer from codes to pattern themes. In the second validation step, the researcher asked an informed, experienced adult ESL teacher/administrator with experience with research to conduct a quality data check (Miles & Huberman, 1994). In order to perform the data quality check, this teacher received a segment of the data representing each data source for each of the participants. In all, he saw sixteen separate segments. The research selected data segments that were densely coded to provide an opportunity for this administrator to check the accuracy of codes and coding instances. This experienced adult ESL administrator was asked to confirm that the data was accurately coded, portrayed the coded segments and appropriately and consistently utilized the definitions of the codes. In other words, the adult ESL administrator verified that the coding represented an accurate consistent application of codes and was an acceptable interpretation of the data (T. Hadley, personal communication January 29, 2010). The final validity step was a member check (Miles & Huberman, 1994). This was performed with each of the participants (except for Teacher 4 who had left the school and could not be contacted). In this negotiation, participants systematically reviewed the coding, the results, and interpretations. The participants

agreed that the codes and findings were accurate and acceptable interpretations of their articulation of their reported thoughts about teaching.

Chapter 4

Findings

This study explored the differences in the thinking of more and less successful adult ESL teachers during planning, teaching, and reflection. In exploring the findings, the chapter reports a comparison of the SR protocols of the more and less successful teachers in this study with the findings of studies by Gatbonton (2000, 2008) and Mullock (2006) who studied differences between more and less experienced adult ESL teachers. Next the chapter reports the pattern themes and the congruencies and differences across participants that emerged in this study. Finally the study reports the overall comparison and contrast between more and less successful teachers of adult ESL students.

Comparison to Gatbonton and Mullock Studies

To explore the relationship between the results of the current study and the results from Gatbonton (2000, 2008) and Mullock (2006), a comparison was made. The findings of this comparison include first, a report on how the coding was incomplete and inadequate using only the categories from the previous studies. Second is a contrast between the uniformity of pedagogical thinking between participants in previous studies and the divergences of pedagogical thinking between current participants. Third is the contrast between the focus of their participants on Language Management and the current teachers' divergent foci. Finally is a comparison of the high outlier results that occurred in the previous studies with the fairly even dispersion of categories in the current study.

Before exploring the reasons why the Gatbonton (2000, 2008) and Mullock (2006) studies were incongruous in relation to this study, the reader should keep in mind that the previous studies attempted to classify and quantify the thoughts of adult ESL instructors. They

did not seek to understand the meaning of teachers' pedagogical knowledge in relationship to the teaching itself. They also sought uniformity across teachers rather than exploring the individual meaning of a category within the constellations of codes.

Inadequacies of previous categories. To examine the incomplete and inadequate nature of the coding categories from the previous studies, the results of the first step of analysis is reported. This analysis used the a priori codes taken from the studies by Gatbonton (2000, 2008) and Mullock (2006) to codify the SR portion of the data. The results are reported in figure 3.

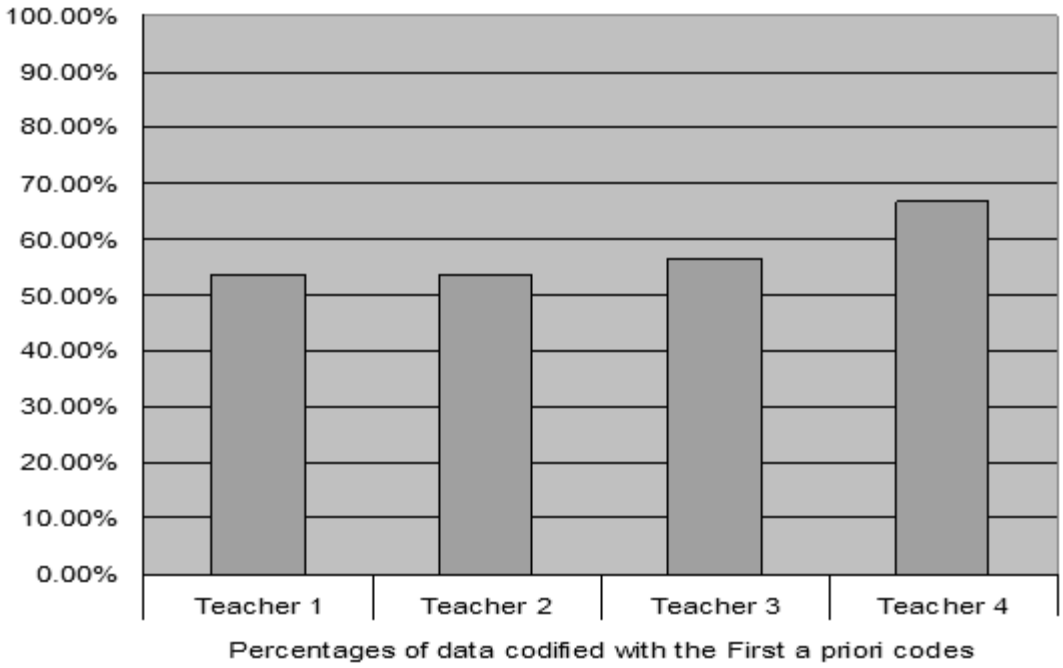

Figure 3. Percentage of the data coded with the first a priori list developed from codes in previous studies. This table indicates not only how much was coded, but also illustrates how much of the data remained uncoded using only the a priori list from previous studies.

Note: Two separate tables, Appendix K and Appendix L, give a more detailed approach to this comparison. Appendix K illustrates the comparison between the four participants of the current study in their reported thoughts from just the Stimulated Recall portion using the codes from the first a priori list. Appendix L compares the results of the current study with the previous studies including separate columns for reports on novice participants.

The a priori codes taken from Gatbonton (2000, 2008) and Mullock (2006) were inadequate to codify all of the separate thoughts for the SR portion of the data. For Teacher 1

these codes only codified 74 of the 138 categorized thoughts. For Teacher 2 the codes accounted for 73 of the 136 total thoughts. For Teacher 3 they codified 99 of 176 thoughts and for Teacher 4 they codified 54 of 81 reported thoughts.

Divergence in pedagogical thinking. Unlike the previous studies (Gatbonton, 2000, 2008; Mullock, 2006) where there appeared to be uniformity in reported codes across teachers, in this study, the teachers' reported thoughts from the SR session did not appear to relate in any significant way to one another (see table 2 for the individual ranking of the teachers for the eight top ranking categories from the current study). This may raise questions about the way in which earlier research studies had averaged data across teachers.

Table 2

Top Eight Group Pedagogical Thoughts from Stimulated Recall: What Each Individual Teacher's Ranking was for each category.

Top 8 Group Pedagogical Thoughts from Stimulate Recall	Teacher 1	Teacher 2	Teacher 3	Teacher 4
1. Language Management	#19	#11	#4	#1
2. Knowledge of Students	#18	#6	#3	#5
3. Note Student Actions and Behavior	#2	#2	#14	#7
4. Aid Comprehension	#4	#13	#5	#4
5. Content	#5	N/A	#2	#6
6. Decisions	#12	#5	#12	#3
7. Time Check	#21	#3	#7	#9
8. Self-Critique	#1	#9	#13	N/A

Note: The top eight group pedagogical thoughts are shown on the left. Each of the teachers' columns indicates how that particular category ranked for them personally. The table indicates that the teachers' own rankings do not compare to the top eight categories.

Examinations of the instructional thoughts of each teacher in this study show that there were distinct differences among the individual teachers in terms of the top group of categories. Of the top eight categories from combined totals only four of them (Knowledge of Students, Student Actions and Behavior, Aid Comprehension, and Content) were in the top 8 categories of thoughts reported by individual teachers. The number one category for this study, Language Management, was only significant for Teachers 3 and 4, the less successful teachers and in their individual thoughts it ranked number 1 and number 4 for them respectively. For Teachers 1 and 2, who were the more successful, Language Management did not occur as one of their top 8 categories. It ranked as number 19 and number 11 respectively. Indeed, in this study, there were no categories which could be considered as a dominant group pedagogical thought as had been identified in previous studies.

Focus on management of language. Language Management was reported as important in all three previous studies (Gatbonton, 2000, 2008; Mullock, 2006). Likewise, when totals across participants are considered, it is one of the more frequently reported categories of thought in the current study. But, in this study, Language Management was more frequently applied as a code only in the protocols of the less successful teachers- Teachers 3 and 4. The more successful teachers in the current study hardly ever talked about teaching thought's coded category; Teacher 1's pedagogical thoughts were coded as Language Management only 1.35% of the time and it was number 19 of the 24 codes recorded in her transcripts. Teacher 2's reporting of pedagogical thoughts was only slightly higher, she focused on Language Management 4.11% of the time, and it ranked as number 11. In reality the totals showed that Language Management was the most frequently coded category because the pedagogical thoughts of Teacher 4, a less successful

teacher, were coded Language Management 18.52% of the time. This finding raises questions about the focus of Language Management in previous studies.

Differences in percentages across studies. A comparison between the individual results of each of the four teachers during the SR and the results from the Gatbonton (2000, 2008) and Mullock (2006) studies reveals a final difference between these findings. See figure 4 for a visual representation of the differences between the current participants and previous studies results. (See also Appendix M for a more detailed and extended comparison of the differences).

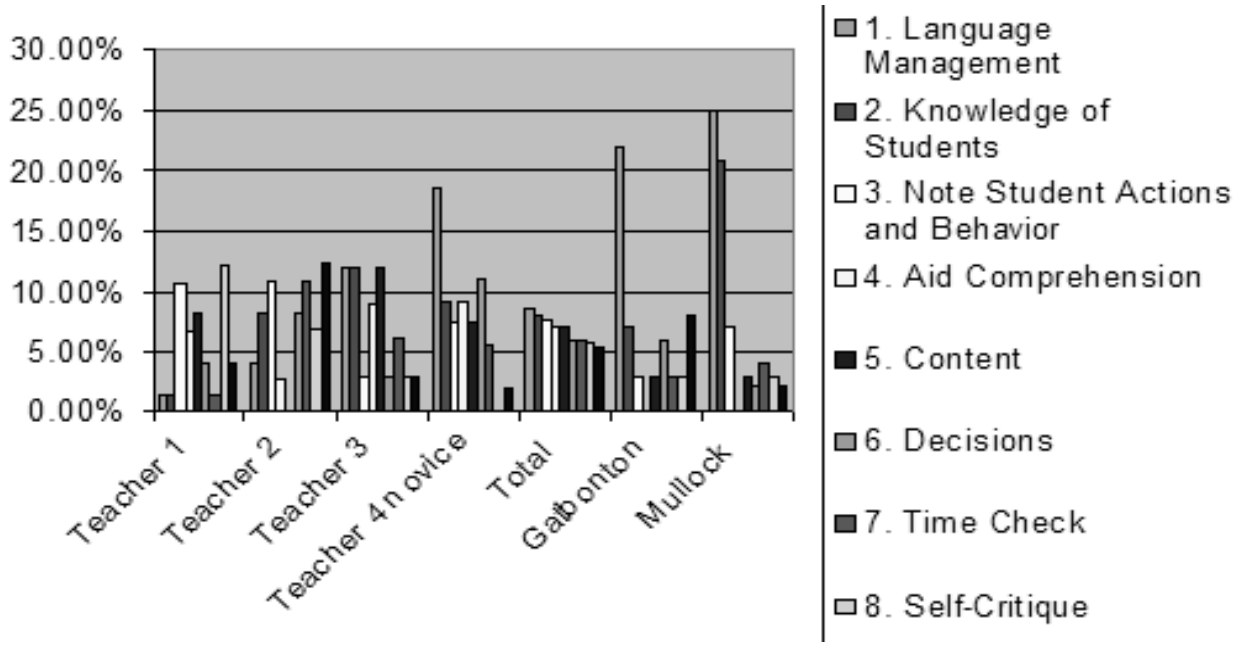

Figure 4. Comparison of top eight group categories for the current participants with the total results and results of previous studies. The figure indicates that for the first three participants the coding was fairly uniform. However, for the novice Teacher 4 her number one category almost reached 20 %. Even Teacher 4, though, did not have the same outlier categories of Gatbonton and Mullock. Their first categories far outstripped the subsequent categories in terms of frequency of coding.

Both Gatbonton's and Mullock's studies reported high percentages of frequency for their top categories. In contrast, the participants in the current study did not show particularly high percentages in any of their categories, especially when their results were averaged. In

Gatbonton's first study (2000) the top three categories were 18%, 14% and 10% of the total thoughts making up 42% of the total thoughts. Her second study's (Gatbonton, 2008) results showed that her top three were 22%, 11%, and 10%, making 43%. In Mullock's (2006) study the top three were 25%, 21% and 10%, making 56% of the total reported thoughts. Only after the first three categories did the frequencies drop below 10%. In contrast, the top categories in the current study were 8.6%, 8% and 7.6%, making only 24.2% of the total thoughts. There were no large outlier categories as had been found in the previous studies (see figure 5).

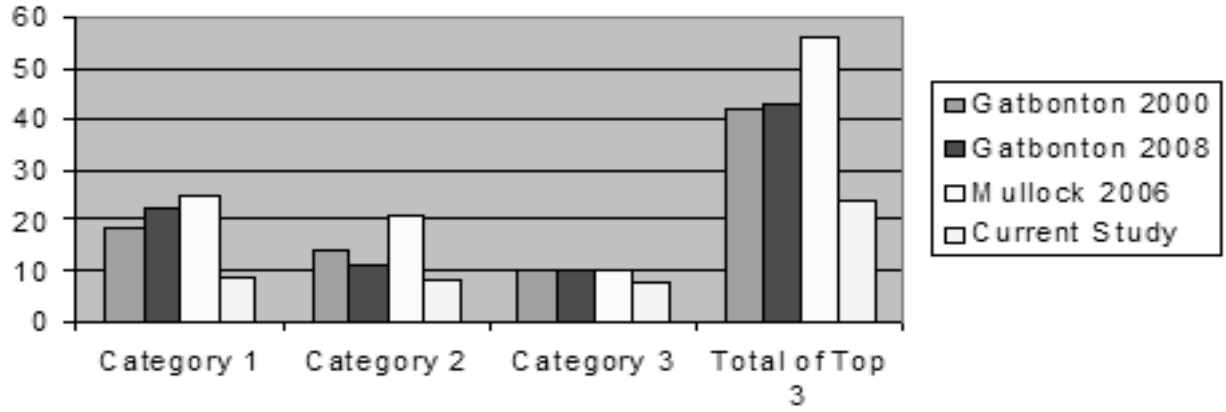

Figure 5. Differences in the reported percentages of the top three categories. Notice that for the previous studies the top three categories made up almost half of the total pedagogical thoughts. Whereas in the current study they made up only a fourth of the total thoughts.

Results from this first step of analysis showed that there were some large differences in the coding categories, in the divergence of thinking by the participants in the current study, in the top category's importance and in the reported percentages of the top categories for each study.

Pedagogical Pattern Themes

First, the findings reported in this section establish the five pedagogical pattern themes that emerged from the reanalysis of the data after the application of the second a priori codes and inductive codes. Second, there is an explanation of the pattern codes in each of the teacher's

pedagogical thoughts and how the codes interact for each teacher. Finally the congruency of the more successful teachers is compared to the lack of focus of the less successful teachers.

Definitions. This section will define the five pedagogical pattern codes and give an example of how that pattern code was used for each of the teachers. (For a detailed look at each teacher's categories and how they developed into the five pedagogical pattern themes along with examples from each teacher, see Appendices J, K, L and M.)

Academic Focus. The pattern of Academic Focus showed a desire to adhere to the lesson plans, to cover the required materials and a focus on acting as a professional teacher should. The following examples illustrate how this theme was found in each of the teacher's protocols. Teacher 1's transcripts were rarely coded with Academic Focus, however she did show examples of Academic Focus during her P, "I am doing this because it's on my module that I am supposed to be teaching." Teacher 2's transcripts were also rarely coded with this pattern. One example of this pattern came from her FI questions as she was discussing her planning for the next day, "Well in the module the lessons are separate. So in one day I try to cover one topic, but I like to talk about some of the things we did [from the day before]." Although even in this example you can see her desire to adjust the modules to fit her classes. Less successful Teacher 3 on the other hand had numerous examples of Academic Focus throughout her transcripts. A strong example is from her P session, "I am pretty much following the module, sticking to the plan that the school is advocating." Finally the less successful and most novice teacher, Teacher 4 also had a large portion of her transcripts coded with Academic Focus. In fact, of the four participants she reported most often on the benefits of the modules, for example during her P, "So the purposes for this lesson…the objectives are already written here, so that's nice so I know what my purpose is, I know what I'm supposed to… [what] I'm trying to help them do."

Comprehension. This pattern indicated a focus on making sure that the material presented is understood and that students are able to retain this understanding and use it in the future. Here are some examples from the participants that show a focus on comprehension. Comprehension was a major focus for Teacher 1 and so examples are found throughout her transcripts. She was constantly looking for simple ways to instruct her students, "So I was looking for an easy way, so that it would be easy to explain as we reviewed it" (taken from SR). Teacher 2 had some examples of the pattern of comprehension, but it was only a secondary theme for her. For example, she said during FI, "If you want someone to do something, you first have to show them what you want them to do." Teacher 3 often was coded with this pattern when she was assessing her student's knowledge, "So what did you do for your ankle? What did you do? *Things that we talked about*, did you put ice, heat?" Teacher 4 also was coded with this pattern when she was assessing student understanding, "so I was thinking I will ask him his information as an example. Show him what I want" (taken from SR).

Engagement. The pattern of Engagement indicated a desire to capture the attention and encourage active participation of the students. Teacher 1 most often attended to Engagement by allowing her students to make choices in her class, "I always like to draw on what they like when they do things. You know I like to relate their lives and the things they like" (taken from FI). Engagement was a major focus for Teacher 2 so there are numerous examples of this theme throughout her transcripts. From the first page of her P she said, "So the first thing I have to do is get them out of their comfort zones. I have to get them responding and talking and mixing up and they will talk with each other a lot easier." Teacher 3 focused on student Engagement in her P primarily. In her explanation of why she uses visuals she explains, "I think tangible things are more interesting and [encourage] more active participation from the students." Teacher 4 also did

not have a lot of examples of Engagement, but in discussing the school's modules she noted, "A lot of the current plans are geared towards making them [the students] talk and interact, 'cause a lot of them are tired, so they'll get bored" (taken from P).

Language Management. This theme was indicated when teachers reported conscientious effort to direct and/or correct the language use, both written and spoken of their students. Teacher 1 showed Language Management often when she was trying to get the students to write in a specific way, "Did you hear some of the words I just said to you: even, more, and most? You're going to use those kinds of words in your sentence." Teacher 2 managed student language when she noticed they were struggling or when they were incomprehensible. When one of her students was speaking, she fumbled with various words before figuring out what he was saying and then she had him practice repeating the correct pronunciation, "Bilinguals? Bilanguage? Oh! No no no, Body! Say body language" (taken from CR). Both Teacher 3 and Teacher 4 have numerous examples of Language Management. Teacher 3 attempted to manage language because of the school's modules, "Here he's talking about a personal experience and I am trying to get him to use the vocabulary for cause and remedy [one of the daily course objectives]" (taken from SR). Teacher 4's focus on Language Management was due to one of her beliefs on language acquisition, "I like to constantly pronounce it right for them and have them repeat it. I think that will help them eventually get it right" (taken from FI).

Student Centered. This pattern indicates a focus on the individual needs, desires and background knowledge of the students for use in planning, executing or even digressing from the lesson. It differs from Engagement in that the lesson content shifts to what they students feel they need and not just in getting the students to participate. Teacher 1 did not have examples of it in her lesson, however she alluded to it when she discussed vocabulary development, "I've been

doing something where I put their words up on the board when they mispronounce a lot. And then at the end of the class-time we review those words." Teacher 2 rarely was coded with the pattern of Student Centered. Her lessons were dynamic and rarely left the topic she was focused on. She did talk about helping individual students at one point in her FI,

> There was one of my students in integrated skills who was very upset about grammar [a different class with a different teacher]… So I tried to encourage her and I says, "Now if you don't understand, you bring it to me and I'll help you.

She showed she was willing to look at individual student's needs though there was no evidence of her actually doing this in her recorded lesson. Teacher 3 on the other hand was constantly going back and forth between her lesson and Student Centered instruction. Though whether this was intentional is not clear.

> I think what's difficult for me and probably other teachers, is sometimes the students want to talk about other things off the topic totally… so you have to weigh—is it more important that they are just talking and participating or is the important thing that you talk about the topic.

Finally Teacher 4 modified her planning of the lessons, though she indicated that she wanted to have more writing in her class, the students asked for more talking, so she accommodated, "So I try to do a lot more conversation and partner work. That seems to be the most that the students want is a lot of conversation."

Pattern codes of individual teachers. This section articulates how the pattern codes interact for each of the teachers. For the more successful instructors, Teacher 1 and Teacher 2, a central pedagogical pattern theme was identified and the other themes were subservient to that theme. In contrast, for Teacher 3 the different concepts of teaching represented by the pattern

themes seemed to interrupt or conflict with one another. And for Teacher 4 there seemed to be a lack of a cohesive theme that focused her instruction.

More successful Teacher 1. Teacher 1's overarching pedagogical pattern theme was Comprehension. The other pattern codes were subservient to this code. To illustrate this point I will give four examples from her instruction and her reported thoughts and comments.

Teacher 1 had 22 separate instances where she expounded on her beliefs of teaching. 15 of the 22 times or 67% of the stated beliefs were about how to get students to understand the learning outcomes. For example she said, "I like to start with the easy ones then the hard ones will…I can explain them better once I get to the hard ones" (Taken from FI). The other 7 beliefs dealt with Language Management and Student Centered teaching. These beliefs though did not contradict her focus on comprehension, in fact, they augmented it. For example in she indicated that she liked to write the correct English on the board, "and then I feel like after they see it written that way then they start to realize and they start to say it that way" (taken from SR). She felt that if she managed their language they would better understand and then they could use the language better. For her Student Centered pattern she said, "that's kind of how I teach. I just go by whether, whatever direction they are going, then try to adapt it around what they are doing" (taken from SR). She said this while watching how she had modified the lesson because one of her students had talked about a principle which she had not yet addressed. She used the comment of the student to fill in the next principle then went back and helped them understand the previous concept they had missed.

Teacher 1 used a lot of explicit instruction during her CR. Twenty of the 22 (91%) instances when she explicitly taught something or talked about needing to explain something clearly, she was doing it in order for better student comprehension. An example was in her SR

when she is explaining what she was thinking, when she re-taught something she had just taught, "They just hadn't remembered whether to put their own [opinion] at the beginning or the end, so then I knew I would have to explain that part again." The other 2 instances were dealing with a Student Centered focus as previously discussed in how she helped develop word lists specific to each students and was explicit on how to pronounce the words. Second was Language Management, "Then later they asked me all the possibilities of using that [word]. I was trying to be as clear as possible. I was trying to be clear on that." These other patterns in her explicit instruction work to enhance the comprehension of her students.

Her use of clarity and appropriate language, both spoken and written, are another example of how her focus was on comprehension. Twenty of the 21 instances (95%) when she was using appropriate language, she was focused on either a desire to make her instruction more clear for the students or talked about eliminating writing that was confusing or distracting, e.g. "When I sense they are confused, then I go to the board and try to write out the sentences" (taken from SR), or, "So, I was looking for an easy way so that it would be easy to explain as we reviewed it" (taken from SR). The only example that didn't deal specifically with comprehension dealt with helping students develop their personal vocabulary, Student Centered.

Finally, Teacher 1's use of questions strongly indicated that she was focused on all aspects of comprehension. First, she asked ten questions about what they knew from before the class, for example "…and you have to use good transitions. You know what transitions are?" (taken from CR). Second, there were 4 questions to ascertain what they recalled from past lessons, "do you remember when I told you that 'advantages' is a little different than other types of essays? Do you remember me talking about that?" (taken from CR). Third, she questioned five times to determine if they understood the present lesson, "So if you saw this how would you

confront it?" (taken from CR). These first 19 questions all dealt with student comprehension. The last two questions did not deal directly with Comprehension. Instead they were recoded as Student Centered, because they dealt with student opinions, "I want to ask you guys, are those equal for you or do you think one of them is above the other?" (taken from CR). As discussed previously she used a Student Centered approach with opinions and preferences to allow the students to better understand what she was talking about.

The other pattern themes of Engagement and Academic Focus were so rarely used in coding her data that it was inconsequential to the findings for Teacher 1.

More successful Teacher 2. Teacher 2's overarching pedagogical pattern theme was Engagement. The other pattern codes were subservient to this code. To illustrate this point I will give five examples from her instruction and her reported thoughts and comments.

Teacher 2 was concerned about the affective state of her students. In fact, 22% of the 508 categorized thoughts dealt with the affective state of her students and all of them dealt with how engaged the students were in the lesson and how to get them more engaged, " I like to interact with all of the kids personally so that they know that I know they are there" (taken from SR).

Teacher 2 also talked extensively about her beliefs on teaching and student acquisition of language in her SR interview as well as in the FI. Twenty-five of the thirty-five beliefs dealt with keeping the students engaged or keeping the momentum of the class going. For example, "you have to move or else you'll lose too if you don't keep the pace of the lesson going" (taken from SR). Other beliefs were Student Centered such her opening comment in P, "Ok, the first thing that I always consider is that fact that I am not teaching a lesson; I am teaching students." This Student Centered approach led her to want to keep her students engaged she goes on to explain, "so the first thing I have to do is get them out of their comfort zone." Other beliefs dealt with

Language Management but they also were in conjunction with students' participation in the lesson. For example, when the students mentioned that they liked to read in English, Teacher 2 applauded them and gave her belief on reading, "you read it and it plants it in your mind so you can understand or it sounds correct then it's easier for you" (taken from CR).

Teacher 2 celebrated big successes and little successes in her classroom to further engage the students. She explained during her FI the reason why she constantly celebrated the students' achievements. She said, "Make sure that you say something about their answer. Say, 'that was good…' or take a word from it. And the more you do that then the more they feel free to discuss." An example of this is when one of her student's was struggling with one of the tongue twisters and he finally was able to haltingly say it. Her praise was not just "good", but she found something he did well and pointed it out to the class, "Good! He articulates those P's really [well]. He does" (taken from CR). Teacher 2 constantly praised her students in order to keep their Engagement.

Group work was used a lot as well for student Engagement. The comments in the SR and FIs indicate that she used these categories as tools: first, as tools to get students motivated, and second, as tools to do make sure everyone participates. Both of which are tools of Engagement. "You can put three together and have them work…they pick up enthusiasm from each other" (taken from SR). She indicated that students became energized when working together. An example of participation was during her SR when she was reporting on the students working in groups and she was listening in on each of the groups, "you don't have time to have them all do it [individually]. If you have them all do it out loud by themselves, then you lose the class…you lose their attention." Even here it is obvious that her focus is on student Engagement.

Finally, Teacher 2, like Teacher 1, used a lot of questioning. The motivation for Teacher 2 in her questioning was quite different, however, from Teacher 1. Teacher 1 used questions to find out if the students comprehended the material. Teacher 2, instead, used questions to engage the students and encourage participation.

> Rather than telling them the information, I like to have it more of a give-and-take and keep the students engaged in the current presentation. If I am doing a lecture, I'll talk about something and then I try to ask them a question that they can process and try to come up with an answer (taken from FI).

She goes on to show that she isn't as concerned with the right answer as she is with Engagement,

> And then I try to rephrase it, but they wouldn't come up with 'pronunciation'. They came up with some other ones. *But it just gets their mind with you*. If I just stand up there and…lecture, you have people not paying attention. You know it's not working.

Teacher 2 was so overwhelmingly coded with the pattern theme of Engagement that the other themes of Student Centered instruction and Language Management were almost hidden. The themes of Academic Focus and Comprehension were so small that they were not a significant factor in her instruction.

Less successful Teacher 3. Teacher 3 did not have a central pedagogical pattern theme. Instead one of the pattern themes conflicted individually with three of the other pattern themes. Teacher 3 had a strong Academic Focus. However, Language Management, Comprehension, and Students Centered instruction interfered with that focus and often undermined her instruction.

It was clear that Teacher 3 was trying to get the one student that attended to use the target language, e.g. " I am trying to get him to talk about 'should', which was a review of last week…I couldn't really get him to respond with 'should'" (taken from SR). Her desire however, to stick

to the plan including the time restraints and the daily objectives forced her to continue the lesson instead of making sure that he used the proper language. For example during the second phase of her instruction where she showed flash cards of people with obvious medical problems, the first card was a picture of a woman with obvious stomach problems. She then asked her student what the problem was. At this point she attempted to elicit a specific response by modeling how to say the sentence, "she is…" but the student simply said the malady "vomiting." She then asked, "Why is she vomiting?" Again the student answered with a one word answer, "stomachache." Then the teacher modeled the correct response, "She might have a stomachache." Unlike the first phase of her review however, the student simply repeated stomachache. The teacher, though, just went on without making sure that he answered with the correct use of the target language. She then asked "what should she do?" emphasizing the word "should." The student gave a possible cause of the problem but did not use the word should. Again the teacher asked him, "What is the solution? What should she do?" He struggled with the questions she asked and she asked him again, but this time she did not use "should" in her questions. The student finally came up with a remedy, "is possible use medical active charcoal", but he never used the word "should." The teacher talked about active charcoal for a sentence and then went onto the next picture (taken from CR). Her goal to manage the student's language was undermined by her determination to stay on track with the lesson. At another point, she explained how she was bringing in vocabulary, but due to time restraints she didn't really get into it, "so I am bringing in more vocabulary: natural medicine. Here I am saying let's get onto the next topic which is what I really needed to talk about today, because we were a couple days behind" (taken from SR). Teacher 3 had stated objectives of language Management, but her Academic Focus on the

planned lesson undermined her desire to get him to use the correct language. So instead she simply went on with the lesson.

Teacher 3 had another conflict between Academic Focus and Comprehension. When the student was explaining how he had hurt his ankle, she decided to check his comprehension of the previous lesson on remedies. She asked him, "What did you do for your ankle? What did you do? Things that we talked about…did you put ice, heat?" (taken from CR). The student, however, ignored her questions and kept talking about his accident. Instead of returning to the concept of Comprehension she moved on to the next card. Like the two more successful teachers, Teacher 3 also used a lot of questioning. However, her questions were not focused on a pedagogical theme instead they were often fragmented between two Academic Focus and Comprehension. Teacher 3 felt that questioning was an important part of teacher protocol. "I am trying to show interest: body language, asking questions, trying to ask comprehension questions…" (taken from SR). At this point in the lesson she was discouraged by the pace of the class and that her student was just telling a story. Though she was not interested in the story and wanted to go on with the lesson she felt that it was important that as the teacher she showed interest by asking questions. Though she wanted to go on with the lesson, she often asked Comprehension questions about the story which encouraged the student to expand his story. Though she was in a hurry to catch up on her lesson, she also asked Comprehension questions to find out if the student remembered previous lessons. This caused her more frustration because the student then would search through his notebook or recount another story or excuse, "and here I'm waiting for his reply…why isn't he organized? He should have a binder. And I'm trying to think of the next card that I can user for the vocabulary" (taken from SR). She was obviously

torn between making sure that both she and the student understood one another and finishing the lesson.

The most pronounced conflict, however, was between Student Centered and Academic Focused instruction. In fact, Teacher 4 pointed out the conflict herself. While reflecting on her instruction in the FI, she pondered this conflict, “Is it more important that they are just talking and participating or is the important thing that you talk about the topic than just anything?” She also indicates this conflict at the very start of her SR, “I was trying to get him to review what we were doing and use the vocabulary, but he was interested in… I was trying to get him focused.” She changed her comment from what he was interested in to getting focused, but the conflict between their purposes was distinct. In fact, her thoughts over the next ten pages of transcripts from her SR returned 14 times to this conflict of how to bring this student back to the topic in the module that she had to cover that day.

Teacher 3 overall had conflicts between the Academic Focus she felt was necessary as a teacher and employee of the school and with her desires to manage the language of her students, address issues of Comprehension and above all modify the lesson to better address the interests and needs of the students. The pattern of Engagement was not significant in her data.

Less successful Teacher 4. Teacher 4 had 305 coded notations from her data, by far the fewest of all the teacher participants. Each of the five pedagogical pattern themes was present in her data. By far, the top theme was Language Management. The other themes played out not in support, nor in conflict with the other themes. They simply were present. In fact, there didn’t appear to be any focused theme as with the first two teachers, nor deep conflicting themes as with Teacher 3. Teacher 4 was simply carrying out the lesson as planned.

The overall theme for Teacher 4 can be summed up by her comment in her FI:

> I think a lot of the time while watching this it was hard to think about what I was thinking. I just do whatever I planned. I don't really think about exactly why I was doing… Why we were doing the activity. I just think about time: Like making sure that we have enough time, it's not overtime (taken from FI).

Teacher 4 was concerned about Language Management primarily because that was the lesson for the day, "like for the alphabet activity, I was seriously thinking about pronunciation, and if I heard it wrong then I would say it and they would say it." Unlike the other teachers who reported constantly questioning their lessons and modifying them to meet their students' needs, Teacher 4 admitted, "So I guess I really don't think about why I was doing it during the teaching." As Teacher 4 was the most novice participant I assume that she will grow and change and perhaps develop a particular theme or conflicts in her future teaching career, therefore I will give a few of her beliefs surrounding the five pedagogical themes that perhaps may further develop as she does.

Her beliefs on Language Management include ideas on pronunciation mainly. She explained in the FI her beliefs about why pronunciation is important:

> I think it's important for the students to pronounce the words correctly and I know that accents…it' like, I don't think accents can ever fully go away; I don't think they should. I think accents are fine, but pronunciation is different than accents, I think. So I think it's important for them to get pronunciation right on the English words for other people to understand them and for them to be able to communicate with other people (taken from FI).

In this portion, there is evidence of her desire to get students to speak clearly and to be understandable. There is also evidence of her desire for the students to interact in society. Furthermore, she shows sensitivity to culture and biases.

In discussing the theme of Academic Focus, Teacher 4 she was grateful for the modules and followed them closely. This may be in part due to her status as a novice teacher and not having as many years of experience and resources to draw on to meet the language objectives. Her lesson plan followed the provided module precisely as did her lesson. The one variation that occurred was when an activity from the module did not match the provided worksheet, at which point both the students and she were confused for a while about how to rectify the situation.

Her beliefs on Comprehension focused on being aware of student understanding. She said, “I think it’s important as a teacher to realize when it’s too much and when we need to work on it some more” (taken from FI). She showed desires to get the students to understand and watch and confusion and also boredom from students who had mastered the concepts.

For Engagement, Teacher 4 focused a lot on her own affective state and how much she enjoyed teaching. She also shared her belief on classroom atmosphere, “I think it’s important to have a classroom where everyone is friends: a friendly atmosphere… ‘cause then they’re comfortable making mistakes in front of each other.

For the theme of Student Centered instruction, she recognized the need for her students to get individualized attention, but she did not take immediate action nor did she plan to do anything about it.

> Also it’s hard when some students finish early and some students are still working. Managing those, like I can see when some students are kind of frustrated. They just want to more on. They’re waiting and some students are slower (taken from FI).

Comparison and Contrast between More and Less Successful Teachers

A contrast of the more successful teachers and less successful teachers indicates more than anything else a difference in how the teachers deal with unexpected changes or difficulties in their instruction. First, how their plans coincided with their actual instruction and second how they dealt with student issues.

Plans and instruction. The more successful teachers planned for the specific needs of their students. The less successful teachers planned the lesson according to the prescribed methods by the school expecting the materials be designed to attend to the needs of their students. For example, the more successful Teacher 1 in her P said, “the thing is I am teaching two `very advanced people, so it is very easy for them to see this.” Teacher 2’s first comment in P was, “Ok, the first thing that I always consider is the fact that I am not teaching a lesson; I am teaching students.” These comments are in sharp contrast with the less successful Teachers 3 and 4. Teacher 3 said “I am pretty much following the module, sticking to the plan that the school is advocating.” Even though she noted that she had a student that monopolized her discussions and also at night her students tended to come late, she did not attend to these issues by adjusting her plans. Teacher 4 during P exclaimed, “The objectives are already written in here, so that’s nice. So I know what the current purpose is, I know what I’m supposed to… I’m trying to help them do.

While planning, the more successful teachers had already prepared for the students in their particular class. Teacher 1, due to her focus on the Comprehension of her students, knew what they already understood and therefore was prepared in what to teach. At one point she said, “I was realizing that they didn’t remember it very well. I knew they knew it, so I was trying to get them to remember” (taken from SR). Teacher 2’s preparation, with the focus on Engagement,

helped her know which parts of the lesson she felt would engage the students and which portions she needed to skip. For example, she decided to skip the module activity on puns because the students “never get it” (taken from P).

The less successful teachers, on the other hand, were ill prepared to deal with the dynamic changes the individual students brought to the class. For example, for Teacher 3, when only one student showed up and he wanted to talk about different issues than she had planned, she was conflicted about “sticking to the plan that the school is advocating” or allowing the student to talk about whatever he wanted. This conflict frustrated her and distracted her from teaching the principles that she had planned to teach. It was obvious that the student did not even know what he was supposed to be learning. For Teacher 4, she had a class of students that were on opposite ends of level one competency. One was just learning the basic letters of the alphabet and greetings, while another student was well ahead and ready to advance to the next level. Teacher 4’s instruction, nonetheless, went forward according to her plan whether it was too difficult for the one or too easy for the other.

Ways of dealing with student issues. The second contrast between the more successful teachers and the less successful teachers was in dealing with students issues. The more successful teachers used their pedagogical pattern themes to deal with the student concerns. For example, Teacher 1 was constantly monitoring for Comprehension. At one point she noticed their confusion, “I think here I felt like they were a little bit confused… when I sense that they are confused, then I go to the board and try to write out the sentences” (taken from SR). Teacher 2 was likewise constantly monitoring, but for her it was for Engagement. In her FI, she talked about when she noticed one student was not engaged in the lesson, “What you have to do, the same thing doesn’t work with all students you know. That’s the hardest part of teaching. You

have to know what will engage each one, what system, what technique works with…better with them" She goes on to explain how she dealt with this particular student, "so I was trying to be real positive with him…interest him, give him some feedback, or give him a challenge…"

The less successful teachers, on the other hand, were unable to deal effectively due to their conflicting pedagogical patterns or their lack of specific focus. This is similar to the difficulties they encountered from their planning. For example, Teacher 3 was conflicted between the Academic Focus of completing the prescribed lesson, the Comprehension of the lesson objectives, Language Management and Student Centered teaching. Thus the lesson objectives were missed, the student controlled most of the conversation, and Teacher 3 was frustrated and, in fact, fell even farther behind in the lesson progression. On a side note, Teacher 2, who had not really cared whether or not she finished the lesson, noted in a subsequent discussion that she actually finished all of the objectives listed in the manual (P, McAfee, personal communications September 2009).

Teacher 4 was also unsuccessful in dealing with student issues. At one point she got confused because the concepts she was teaching did not match the materials she was having the students fill out. So when she tried to alter the activity to match the objectives, the students became confused. She was eventually able to get them all back on course and doing the appropriate activity, but she lost a lot of the time and momentum in the class.

In summary, the two more successful teachers used the pedagogical pattern themes to focus their planning and instruction. They were able to prepare for their specific students and deal with student issues. For the less successful Teacher 3 her conflicting pedagogical patterns caused confusion, frustration and seemed to inhibit the lesson progression and understanding. For the less successful Teacher 4 her lack of focus on pedagogical thinking patterns in her P and

instruction didn’t allow her to adequately plan for specific student dynamics or to deal expeditiously with student issues.

Chapter 5

Discussions and Recommendations

The purpose of this study was to explore the theories, beliefs and interactive thinking, in short the pedagogical thinking, of successful and less successful Adult ESL teachers during planning, instruction and post reflection. This final chapter will discuss the findings first, of the comparison to the previous studies by Gatbonton (2000, 2008) and Mullock (2006) and second, the five pedagogical pattern themes of teachers and their internal congruencies and conflicts. Third, is a discussion comparing the more successful teachers with the less successful teachers. Following the discussion on the results to the questions will be a discussion of the implications this has for successful and less successful instruction in adult ESL education. Then there will be recommendations for further research in this area with a conclusion focusing on the limitations to this study.

Comparison with Studies by Gatbonton and Mullock

In this section will be a discussion of the findings from the comparison of the initial analysis of the SR portion coded using the first a priori list with the studies which inspired this current study by Gatbonton (2000, 2008) and Mullock (2006) and show how the studies are incongruous on four accounts with probably reasons for the differences. First, there is a discussion on why the previous codes were inadequate. Second, there is a look at how the divergent results of the current study contrast with the uniformity of the previous studies. Third, there is a discussion of the findings on Language Management. Finally, there is a contrast in the reported percentages in the coding.

A priori codes. The first set of codes compiled from categories used in the studies by both Gatbonton (2000, 2008) and Mullock (2006) were insufficient to fully codify all of the data

in the current study. This may be due to several factors. First, is how the codes were developed in the previous studies. The codes were allowed to emerge from the data. So taking them as an a priori list of pedagogical thoughts of teachers was different than simply letting the categories emerge in this study and then comparing across studies. Secondly, the codes in the previous studies were not sufficiently defined and thus were subject to the personal interpretation of the researcher. Even Mullock was not sure if her interpretation of Gatbonton's codes was correct. Perhaps if the earlier researcher had provided more complete definitions, the data in this study could have been completely codified with the codes from earlier ones. Finally, since the data for the current study was much broader, this may have necessitated broader categories.

Pedagogical focus. The previous studies (Gatbonton, 2000, 2008; Mullock, 2006) reported that there was uniformity among the participants and the total results reflected that uniformity. In contrast, the total results from the current study are not similar to any of the individual results of the current participants. This finding indicates divergence of pedagogical focus among the current participants rather than uniformity. Only half of the categories for Teacher 1 and Teacher 2 are included in the averaged results for the teachers, and even those categories are not the same. For the two less successful teachers, there appears to be more consistency. Teacher 3 has five of the top eight categories concordant with the total top eight, while Teacher 4 has six in common and her seventh category is number nine overall. In other words, unlike Gatbonton (2000, 2008) and Mullock (2006) who found that there was consistency among their participants, in the current study, each of the teachers was distinct in their report of their thoughts, actions and beliefs. Possible explanations for this include the many differences between the classes in this study, as well as the curriculum being taught. Instead of a full class, Teachers 1 and 3 were almost tutoring in effect. Teacher 1 had two students and Teacher 3 had

only one. Teacher 4 had three students. Only Teacher 2 had a class size that was substantial with eight students. Even so, their classes were quite small in comparison to the previous studies. This raises questions on the effect that class size has on pedagogical thoughts. Another explanation for the differences is the student level. Teacher 1's class was an advanced class, Teacher 2 had high intermediate students, Teacher 3 had high beginning students and Teacher 4 had basic level students. This raises questions about the influence that student proficiency levels have on pedagogical thinking and what influence does the content of the lesson have on pedagogical thinking.

Management of language. Besides Teacher 4, the less successful novice teacher, the results from the current study contrasted the results of the previous studies (Gatbonton, 2000, 2008; Mullock, 2006) for the SR portion of adult ESL instructors. Both Gatbonton and Mullock reported high percentages of teachers coded with Language Management. In the current study, only Teacher 4's reported thoughts focused heavily on Language Management. When looking at the other three teachers, only one of them, the less successful Teacher 3, even had Language Management in her top eight categories. This category of pedagogical thought, which was so highly ranked in the previous three studies, was hardly ranked for the two more successful teachers in the current study. This may call into question the findings of previous studies on the predominance adult ESL instructors have concerning Language Management. It may also indicate a difference in the pedagogical beliefs of the instructors. Gatbonton (2000) noted in her research that the focus on managing language may be due to the teachers' beliefs on how languages are learned. For teachers who are often coded with Language Management it may suggest a belief that adherence to language structure will result in language learning, whereas a

focus on social interaction for example would suggest a belief that language is acquired not learned.

Conversely, as mentioned in the previous section, this may simply be a product of the content of the class. Teacher 4 was teaching a lesson on pronunciation, it seems only fitting that she would then focus her attention on Language Management. If this is true, however, it is even more surprising that Teacher 1 had so few thoughts on Language Management, since her lesson was on essay writing. More research needs to be done on the influence class size, student proficiency levels and content have on the pedagogical thinking of adult ESL teachers.

Percentages of top categories. The final comparison made between the studies is an examination of the overall frequency in the percentages of reported thoughts. This comparison reveals that there were some categories of pedagogical knowledge that were significantly higher than the rest. It is the conjecture of the researcher that this may actually be more of an indication of a shift toward pedagogical pattern themes as discussed in subsequent chapters than of separate categories of thought since the categories in the current study were close with no major outliers. Perhaps many of the participants in the previous studies had pattern themes of Language Management and Student Centered Instruction as those categories seemed to stand out in the reported data.

As is clear, there are many differences between these studies. The following are two more possible reasons for this. First, the participants of the current study are different from the previous studies. They came from varied backgrounds in education, whereas in the other studies they were all educated primarily in TESOL. The current participants were specifically chosen because they were either more successful or less successful. The previous studies chose only more successful or highly recommended teachers and instead differentiated teachers based on

years of experience. In the current study, all of the teacher participants were American, so culturally, they were different than in the previous studies conducted in Canada and Australia. As noted by Mullock (2006), there may be a pedagogical culture that develops in institutions and this may certainly be the case with these teachers.

Finally, the goals for the studies were fundamentally different. The previous studies sought to categorize and look for uniformity between the pedagogical knowledge of adult ESL instructors. In the current study, the goal was to find differences in the patterns of pedagogical thinking successful and less successful adult ESL instructors.

Discussion of Pedagogical Pattern Themes

The larger benefit of this study comes from the second analysis of the data: the development of the pedagogical thought pattern codes and the identification of individual differences for more successful teachers and less successful teachers using these pattern codes. This section will explore the five pedagogical pattern themes and their relation to recommended practices.

Summary of the five themes. The five pattern codes that emerged during the final analysis, in alphabetical order, were (a) Academic Focus (A desire to adhere to the lesson plans, to cover the required materials and a focus on acting as a professional teacher should), (b) Comprehension (a focus on making sure that the material presented is understood and that students are able to retain this understanding and use it in the future), (c) Engagement (a desire to capture the attention and encourage active participation of the students), (d) Language Management (a conscientious effort by the teacher to direct and/or correct the language use, both written and spoken of their students), and (e) Student Centered (a focus on the individual needs,

desires and background knowledge of the students for use in planning, executing or even digressing from the lesson).

Relation of themes to recommended practices. Elements of the recommended practices in adult ESL are evident throughout the data. In the data, the teachers attended to important aspects of adult ESL education, most especially to second language acquisition and ESL instructional strategies. The teachers showed that they valued these aspects of adult ESL education. However, the differences between the teachers were underscored by their pedagogical pattern themes. These pattern themes indicated purposes for implementing the recommended practices, and also, how portions of the recommended practices which were most attended to often reflected the themes of the individual teachers. For example, Teacher 1, whose theme was Comprehension, was coded often with the ESL instructional strategies of Explicit Instruction, Appropriate Language and Writing, and Scaffolding. All of these categories are important aspects of Comprehension. Teacher 2's reported thoughts, whose pedagogical pattern theme was Engagement, were often coded with the categories of aspects of Affect: Motivation, Self Confidence, and Anxiety. She also was coded often with modeling and celebrating success. These codes point directly to engaging the students.

Teacher 3, who had conflicts between her pedagogical pattern themes, had fewer thoughts coded with the recommended practices codes. But the categories present again underscored her conflicts. Visuals was high and she used them for both academic reasons, because they were important for ESL students and also because they facilitated language acquisition. Her thoughts and comments were also coded often with implicit instruction, though she was unsure why she used this technique. Further, in her SR especially, she reported on the importance of recognizing the students' reservoir of experience, yet here again she conflicted

deeply between her desire to complete the lesson and her desire to acknowledge her student's reservoir of experience.

Teacher 4 showed very little attention to the aspects of adult ESL education. Besides the category of modeling in adult ESL instructional strategies, her other coded categories in recommended practices were quite sparse.

The two teachers who reported the most thoughts coded with recommended practices were the two more successful teachers. They also showed that they attended to specific aspects of these recommended practices that best developed their pedagogical pattern themes. The two less successful teachers attended less to these categories of adult ESL education. They also did not have specific themes that developed across the categories. It is interesting to note that the more successful teachers were the most removed from TESOL. Teacher 1 had not had TESOL instruction for many years and had only been teaching. Teacher 2 had not had any TESOL instruction; she was trained in elementary education. Teacher 3, on the other hand, had more recently been through TESOL training, though she was experienced she had not been teaching as long as the first two. Teacher 4 had just graduated from the TESOL program. How did the teachers who were so far removed from TESOL end up using these categories the most and developing pattern themes that integrated these strategies into their education, while the other less successful teachers, who had more recently been involved in TESOL, were unable to instigate the instruction that they received on educating adult ESL students?

The implications of this finding are that more time needs to be spent in teacher development programs in helping teachers develop their pedagogical patterns as teachers and how to tie in the recommended practices in adult ESL education with those patterns. Also there are implications that large areas of recommended practices are being ignored completely such as

the principles of adult education and multicultural awareness. Though the goal was not to explore what aspects were missing from teachers pedagogical thoughts these were two areas recommended in the research that were rarely present in any of the teachers' protocols.

The next sections will attend to the five pedagogical pattern themes. For each theme there will be a discussion on the use of that pattern and the implications from the findings.

Academic Focus. In the current study, the pattern code Academic Focus was most often a negative component of teachers' pedagogy. Often when the researcher coded portions of the data with this pattern, it was when the curriculum was in conflict with teachers' desires to meet the individual needs of the students or when the teachers talked about portions of the module that they ignored or felt they had to rearrange because it was not logical. Teacher 4, the novice teacher, was the one exception to this negative aspect of Academic Focus. She was grateful and excited about using the materials provided to her and in adhering to the principles and objectives in the lesson modules. This may give good insight as to possible concepts between curriculum materials and teacher development, in that as teachers develop they may seek more autonomy and independence in what they teach whereas novice teachers want the direction and structure.

Comprehension. Since Comprehension deals directly with understanding and learning, logically it would seem like it should be a major focus for all of the teachers. Surprisingly, the desire to make sure that all of the students understood and attempts to design the lessons accordingly were not a major focus for any of the teachers other than Teacher 1. There were many attempts to manage language, but no evidence that teachers tried to see if the students really understood. Since this pattern theme was effectively employed by one of the more successful teachers, further research into helping teachers aid comprehension and check for comprehension needs to be done.

Engagment. Student Engagement in the lesson deals a lot with affect. In this study, the teachers who were concerned with Engagement made sure that all the students were participating. A focus on Engagement may deal with a more socio-cultural approach to language development, as it involves a common concept of collaborative problem solving where participants co-construct conversation and thus develop cognitively (Miller, 2002). In any event, Engagement deals with a more holistic approach to making language meaningful. The implication here is that successful teachers should be actively monitoring their students and encouraging active learning.

Language Management. In any ESL setting, the category of Language Management would seem obvious, since the courses themselves are focused on developing language. Gatbonton (2000) conjectured that perhaps this desire to manage language was, in fact, an indication of a desire to control and fine tune language. She suggested that many teachers subscribe to the theory that comprehensible input alone is necessary for language development, and that undue focus on the language itself may detract from learning (S. Krashen & Terrell, 1983). Given the evidence that the two more successful teachers were not overly concerned with Language Management, further research needs to be done to determine how important it is for language teachers to monitor language and if their instructional time would be better spent in engaging activities.

Student Centered. Finally, the pattern Student Centered follows recommended practices in adult ESL research (Florez & Burt, 2001; Knowles, 1973). In this study, however, the Student Centered pattern showed not just a concern for teaching what the students want and need, but also underscored issues and concerns that teachers had with the students. Student Centered instruction is difficult in many programs that have set curriculum and specific outcomes.

Teachers with a strong concern for student issues may have similar difficulties to Teacher 3, in that trying to center the curriculum on the students distracts the provided lesson objectives. Teacher training programs should help teachers develop a sense for when and how to have a Student Centered approach and how to correlate that with their curriculum.

Looking at these patterns it seems that each teacher had specific themes that indicated patterns in their pedagogy. Perhaps other teachers would not fit into these same patterns. In fact, it is very likely that other teachers in future studies would show their own patterns and themes that direct their own teaching. Two of these pedagogical patterns were specific foci for the more successful teachers. The other three were, at best, supports for the major themes, but for the less successful teachers the themes indicated a pattern of distractions and conflicts which emerged as attention to one theme interrupted or conflicted with attention to another. These findings are specific to the current study, and further research is needed to determine whether similar patterns of cohesion, conflict and distraction in thought patters are related to teaching level of success. Also, it is likely that there are significantly more pedagogical pattern themes that inform adult ESL instructors' pedagogy. Further, research is also needed to explore these patterns

Patterns of use in participants. Each of the teachers had very different patterns for their pedagogical thoughts and actions. Some had very specific patterns that underscored almost all aspects of their teaching while other teachers' patterns showed conflicts that detracted or undermined their pedagogy.

Teacher 1. Teacher 1 was focused on Comprehension. Throughout her instruction it was clear that her pedagogical energy was focused on making sure that the students understood. She focused primarily on making sure that the students comprehended her instruction, retained that

information, and were able to use it in consequent classes. The other four themes supported and were subjects to Comprehension

Teacher 2. Teacher 2 was focused on Engagement. She designed her classes with her specific students in mind. In her P, the first thing she explained was that this particular class was less motivated, so when she planned, she made sure that she kept that in mind doing everything she could to engage them in learning. She was aware from previous experience what worked with adult ESL students and what her students were most likely to be willing to engage in. The pace of the lesson was determined by student participation and Engagement. She closely monitored the mood in the classroom and modified her instruction accordingly. She used various methods which were similar to Teacher 2, instead of focusing on Comprehension, focused on Engagement of her students.

Teacher 3. In contrast with Teacher 1 and Teacher 2, who both had a specific pedagogical focus, Teacher 3 was conflicted between four pedagogical pattern themes. She was concerned with fulfilling her perceived instructional requirements, but her desires to manage language, to make sure the students comprehended the lesson and to allow for student participation, seemed to compete with what she wanted to accomplish.

As she only had one student that showed up for the recording, it may be that this particular student was indeed a problem student and that it may have not been an ideal situation, but Teacher 3 even stated, “this is a representation of every night.” Even knowing which student would most likely show up, she did not plan for that particular student. Instead, she planned the lesson according to the prescribed module.

Teacher 3 had a great understanding of the issues for Adult ESL students. She had years of experience teaching in both public schools and adult ESL schools. She even had been trained

in TESOL. However, she was conflicted in her teaching. Her beliefs, her instructional desires, and the Academic Focus on the requirements of the school seemed to be constantly competing for center attention. The inability to focus on a single pedagogical pattern and integrate concern about other elements may be a factor in her effectiveness as an adult ESL teacher.

Teacher 4. Teacher 4 was a novice teacher trying to get through the lesson. She was concerned with Language Management primarily, but she also showed Student Centered concerns as well as desires for Engagement. Finally, she even had some Comprehension and Academic Focus patterns. Teacher 4's lesson was simple and unaltered, her pedagogical thoughts were limited, and overall the lesson lacked uniqueness. Though all five themes were present in her protocol, they did not interact with one another. Each of the pattern themes was independent and came into play as that portion of the lesson was addressed.

Her class was friendly and upbeat, but not as dynamic as Teacher 1 or Teacher 2. The lesson was executed as outlined in the provided module. She did not have a lot of creative input into the lesson, nor did she have any desires to rearrange, alter or skip any of the material. In fact, she was the happiest of the participants about the provided lessons. She loved knowing what she needed to teach and what the students needed to learn. Perhaps it was because she did not have as much experience to know what the students may have needed, or perhaps it was because she did not have as large a repertoire of lesson activities and experiences as the other teachers did. She may not have been as aware that some students needed different information.

Her thoughts were limited significantly compared with the other three teachers. It may have been the lesson itself, since it was on simple pronunciation of letters and basic conversations. However, she did have some personal beliefs on what she felt adult ESL students needed which conflicted with what she felt the students wanted, other than that her main focus

was on Language Management. She was focused on finishing the lesson. She had planned it, and now was executing it. This was very different especially from Teachers 1 and 2 who were constantly rearranging, evaluating the lesson as they went, and adjusting to see what would work best for students given their own particular pedagogical concerns. Teacher 4 showed little desire to alter her lesson to fit the needs of the students in her class.

Interestingly, though the content of the lesson that day was based on pronunciation and managing language, whenever Teacher 4 talked about the content, she spoke in terms of an Academic Focus. Of the four teachers, she was the most appreciative of the curriculum provided by the school. Perhaps as a novice teacher she was grateful to have an organized lesson ready to go. This has implications for curriculum development as well as teacher training programs. The curriculum should be designed to attend to important issues in adult ESL education. For successful teachers, they will naturally include those elements in their instruction. For novice teachers, they will execute the lessons as planned. They do not have the experience or abilities to add items they feel might be missing.

Perhaps as Teacher 4 continues to develop as a teacher, she will resolve the few conflicts she has. As well she may find that as she becomes more comfortable in the classroom and develops a larger repertoire of skills and activities she may too find a specific focus that will inform her pedagogy.

Differences in Adult ESL Instructors

The pattern themes within and across the pedagogical thoughts of more and less successful adult ESL teachers were evidence for the implications for the teachers' beliefs and actions in teaching adult ESL instructors. These pattern codes potentially have meaning for teaching adult ESL learners the differences that exist between the participants in the current

study. Particularly, the differences between more successful and less successful adult ESL instructors provide insight about the relationship of pedagogical thoughts, teaching practice and student performance.

The more successful teachers were most often able to integrate their pedagogical beliefs with their planning and practices and so appeared to be better prepared to make changes in their instruction. Comparing this insight to Borg's (2003) review, it seems that the teachers in the current study, as with studies he reported on (Bailey, 1996; Richards, 1998; Smith, 1996; Ulichny, 1996), each modified their lessons in response to student motivation or affective state. What is important in this study is that the more successful teachers were able to seamlessly modify their instruction in harmony with their central beliefs. While the changes of the less successful teachers, especially of Teacher 3, created conflict in their pedagogical thinking. Additionally the few changes that Teacher 4 made were awkward and caused lapses in instruction and confusion to the students.

How the teachers dealt with planning. The more successful Teachers 1 and 2 planned according to their respective pedagogical beliefs. Teacher 1 re-organized the lesson in the most logical manner to support student comprehension. She rearranged material to make it fit well in the day and then explained those changes to her students so they would not get lost. Teacher 2 planned the day with her particular students in mind. She wanted to find fun and engaging activities that would get them involved and encourage them to remain active participants throughout the lesson.

Teachers 3 and 4 planned the lesson according the module provided without a lot of forethought towards the students themselves or an overarching belief such as Teacher 1's focus on Comprehension and Teacher 2's focus on Engagement. Teacher 3 had well-organized and

specific plans for the day, yet she also knew that the student who was most likely to be on time and participating hardly ever stayed focused on her lessons. Teacher 4 also planned the lesson with the module in mind, yet there were students that were not prepared for the day and those for whom the activity was too easy.

Because of the way they planned, the more successful teachers were successful in altering their lesson designs adjusting to the interests and knowledge of the students since their planning indicated attending to adjustments for individual student needs in relationship to Comprehension or Engagement. The less successful teachers were indeed less successful in making necessary changes or being able to adjust in the moment to student needs and while they noted concerns about students during planning they were not proactive about student needs.

Implications on teacher planning are that teacher training programs, as well as professional development programs for adult ESL teachers, should teach how to get to know students, in order to plan for the specific needs of their students using the provided materials. These programs should also instruct teachers on how to modify instruction and activities in relation to what they know about their students.

How the teachers dealt with student issues. When dealing with student issues, the more successful teachers used their primary pedagogical patterns, Comprehension or Engagement, to address the issue. Teacher 1 noticed that one of her students was nervous about the camera being in class and therefore was not concentrating or even participating. She continued to ask questions that were pointed towards getting the student back into the material and focused on the concepts she was teaching. By doing this, she was able to finally get this student to ignore the recording for the most part and learn the material. Teacher 2 had a student that was upset with her about a confrontation before class. She knew that his negative attitude could bring the whole class down,

so by means of praise, encouragement, jokes and small groups, she was able to engage him in the activities, and he continued to function and participate without disrupting the other students. This student ended up in the transcript telling her she was a great teacher.

The less successful teachers, however, did not deal as effectively with student issues. Teacher 3 was unable to resolve her dilemma between letting the student speak freely about whatever, even when he was the only student in the class, or following her detailed lesson plan. This conflict caused her to lose focus on what she wanted to accomplish, and the student was unable to learn the key concepts she was trying to teach. He most likely had no idea what direction the class was going. Teacher 3 became discouraged and upset at the student because she was not able to control the lesson as she had desired. Teacher 4 had a student that was struggling, and she had a student that was excelling. When she saw the struggling student, she ignored the rest of the class almost completely and worked independently with him. In fact, she ended up working with each of the students, except for her highly competent student who worked on her own without teacher support.

The implications here are that by developing a pedagogical pattern theme, adult ESL teachers are able to address concerns with their students and curriculum concerns.

In summary, the difference between the more successful teachers and the less successful teachers was that the more successful teachers had specific beliefs on what they felt students needed to learn, and their pedagogy matched it. Other pedagogical belief themes were integrated into their focus on their central pedagogical theme. The other less successful teachers either had conflicting pedagogical thinking, or they did not have specific pedagogical beliefs. The experienced, yet less successful, Teacher 3 showed in her patterns conflicts in her overall focus,

while the less successful novice Teacher 4, by her own admission was not really thinking during the lesson she was just executing it.

This finding seems to indicate that success as an instructor is not necessarily what your pedagogical focus is, but more on how focused you are and the ways in which you are able to respond to other concerns by maintaining that pedagogical focus. The foci of the two teachers who were more successful were different from each other. Yet, they exhibited similar behavior in planning, questioning, eliciting comments and explicit instruction. Their motivations to do these actions were, in fact, completely different. The successful outcome was the same, though. In contrast, the two less successful teachers either had conflicting foci or no real pedagogical focus. This appears to be the primary difference in the pedagogical knowledge of these two groups within this study.

Conclusion

After considering the results of this study in relationship to existing research on the thinking of adult ESL teachers, several suggestions for research and teaching can be made. This section examines implications from comparisons to previous studies, applications for future research and teacher preparation programs, and limitations

Implications from comparison to previous studies. It may seem odd that so much time was dedicated to an analysis and comparison of only one fourth of the current data, but it was important to know if there was consistency between the current study and the studies which inspired this research. As well, it is important to note the importance of collaboration across research studies. Perhaps the current study will assist in offering additional evidence for the need to study the thinking and beliefs of adult ESL instructors, both novice and experienced as well as more successful and less successful. Another great benefit was the defining of terms. Though the

definitions that are put forth in this research may not be the final definitions, it is important that terms for pedagogical knowledge be well defined so that further research in this area can use consistent terminology.

These comparisons also raised questions about outside influences that may affect the reported categories of pedagogical thinking. What effect does class size, student proficiency level and course curriculum have on the reported categories? More extensive research is needed to determine how these factors affect the overall thoughts of adult ESL teachers.

Applications for future research and teacher preparation programs. The results of this study imply a call for further research into pedagogical patterns of adult ESL teachers, as well as give implications for adult ESL teacher preparation programs.

Future studies will be needed to either refute or hopefully support the current findings and perhaps they will develop a more extensive list of positive dominant patterns of pedagogical thoughts of successful adult ESL teachers from the current initial list of the two patterns Comprehension and Engagement.

One implication for teacher preparation programs is that they may need to not just focus on best practices in adult ESL instruction, but also actively promote the idea that the teachers should be actively engaged in developing their own pedagogical philosophy. Teachers should be taught to prepare not just the materials they are provided with or the next section in the manual, but to note the diversity of skills, interests and needs of their students and plan as Teacher 2 said, to teach students not a lesson. Teacher preparation programs also need to instruct teachers on how to deal with conflicts between their personal pedagogical beliefs, education philosophies and the expectations that are placed on teachers in different locations. Teacher preparation

programs should also prepare teachers for student issues and how to effectively address them in a manner that is beneficial to the entire class and still conforms to their pedagogical ideology.

There is an implication that more must be done as well to encourage ongoing professional education for adult ESL educators. It was not just the novice teacher who had less success. Ongoing professional development for adult ESL instructors will give them more tools in addressing the needs of a constantly changing and diverse population. This professional development should also encourage teachers to reflect on their own pedagogical beliefs and theories and identify how these beliefs compare with their instruction.

There may also be implications for more collaboration among teachers. Less successful teachers can learn how to better prepare for and handle difficult situations and make necessary changes by watching how successful teachers address these issues. This is especially true of novice teachers who do not have the same repertoire of knowledge, experience and activities that they can draw on.

Limitations. There were many potential limitations to this study such as the make-up and participation of the students in the different classes. Also the fact that there was only one researcher looking at the data, and the fact that the researcher as the observer had been in an administration position before doing the research which may have influenced the comments and instruction of the teachers are limitations. As a final limitation, the researcher's personal set of pedagogical beliefs must be accounted for in the final analysis.

First, the class dynamic variables were each different from one another. They had different English levels of students, the lessons were different for each teacher and even the students were culturally and linguistically different in each class. In this study, the researcher attempted to not alter the classes any more than necessary for the observations. Ideally, the

classroom variables would all be held constant. However, the participants were chosen by their level of success and not by how closely their schedule or instructional level matched. Therefore, the classroom dynamics may have had an impact on the results of this study. Future studies would need to have a much broader base of teachers if they desired to somehow keep more of the variables constant.

Second, as a master's student, the researcher was required to do individual research. Undoubtedly there are mistakes in both the coding and analysis, and that more researchers working together would be able to find even more significance with this data. Also the researcher's relative inexperience in research as evidenced by the constant recoding of the data and by his own observations the knowledge that that there are portions of data that could have been recoded differently shows that perhaps more researchers looking at this data would be able to discover even more patterns or concepts. To address this limitation the researcher did attempt three different measures to ensure that the findings were valid: first, by checking the data with a professor at the university he was attending, then, by having another teacher/administrator look at the current coding to ensure that they were valid conclusions, and finally, by meeting individually with each of the teachers as a member check.

Thirdly, as the former site director of the site where the research took place, the researcher had been in a unique position of influence over the teachers. He had also previously observed each of them multiple times as a matter of his duties to evaluate and give feedback. At the time of the study, the researcher no longer had any authority or influence over them, but many of them still came to him and asked advice and feedback on their instruction. This relationship may have influenced both their instruction and reported comments. However, this relationship also put him in a position of knowledge about the teachers as the researcher knew

them both as friends and coworkers and had a fairly good working knowledge about their instruction and he was able to use that prior knowledge to help in the current analysis.

One final set of potential limitations are the personal pedagogical beliefs and theories of the researcher. Potential biases, relevant to the study that the researcher holds, are tied up in his own pedagogical knowledge. He believes that language education is holistic and social in nature. Students must be engaged in all aspects of learning a language including the culture and society. The researcher believes that in order to learn a language students must forget the language and simply communicate. In other words, they need to speak with the purpose of sharing ideas not of getting the grammar components correct. They must write to share ideas not to simply practice syntax. He also believes that teachers' attitudes and attention towards their students will either capture or dissuade the students from participation regardless of the methods and strategies that he or she may employ in the planning process. The researcher's own pedagogical theories and beliefs may have made him judgmental or biased of other teacher's pedagogical knowledge while coding and analyzing. Hopefully the researcher was able to remain as objective as possible and that the results are beneficial to this important field.

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Appendix A

Experienced Teachers' Reported Pedagogical Thoughts from Gatbonton 2000

Frequency (and Percentage) of Successful Experienced Teacher's Reported Pedagogical thoughts from Gatbonton (2000)

	Teacher 1	Teacher 2	Teacher 3	All Teachers
1. Language Management	40 (17%) [1]	47 (19%) [1]	29 (18%) [1]	116 (18%) [1]
2. Knowledge of Students	27 (12%) [2]	38 (15%) [2]	21 (14%) [2]	86 (14%) [2]
3. Note Behaviour	23 (9%) [3]	22 (9%) [3]	9 (12%) [3]	54 (10%) [3]
4. Decisions	17 (7%) [4]	17 (7%) [5]	8 (5%) [5]	42 (7%) [4]
5. Progress Review	6 (3%)	19 (8%) [4]	14 (9%) [4]	39 (6%) [5]
6. Procedure Check	8 (3%)	22 (9%) [3]	6 (4%)	36 (6%) [5]
7. Beliefs	17 (7%) [4]	6 (2%)	14 (9%) [4]	37 (6%) [5]
8. Affective	13 (6%) [5]	18 (7%) [5]	5 (3%)	36 (6%) [5]
9. Self Reflection	22 (9%) [3]	2 (<1%)	8 (5%) [5]	32 (5%)
10. Content	11 (5%)	11 (4%)	2 (1%)	24 (4%)
11. Time Check	11 (5%)	4 (2%)	6 (4%)	21 (3%)
12. Problem Check	4 (2%)	10 (4%)	7 (5%) [5]	21 (3%)
13. Self Critique	7 (3%)	8 (3%)	5 (3%)	20 (3%)
14. Past Experience	11 (5%)	1 (<1%)	1 (<1%)	13 (3%)
15. Planned Acts	3 (1%)	7 (3%)	1 (<1%)	11 (2%)
16. Group Work	9 (4%)	3 (1%)	1 (<1%)	13 (2%)
17. Name Check	0 (0%)	5 (2%)	4 (3%)	9 (1%)
18. Comprehensibility	3 (1%)	3 (1%)	3 (2%)	9 (1%)
19. Probe Knowledge	1 (<1%)	4 (2%)	0 (0%)	5 (<1%)
20. Level Check	1 (<1%)	1 (<1%)	1 (<1%)	3 (<1%)
Total	234	248	145	627

Note: Superscripts indicate the simple ranks of the teachers' dominant PT categories (not the tie-adjusted ranks used in the Spearman Correlation Tests). Percentages may not all add up to 100% due to rounding.

Appendix B

Novice and Experienced Comparison Gatbonton 2008

Categories of pedagogical knowledge comparing novice and experienced adult ESL teachers (Gatbonton, 2008)

PTU categories	Novice Teachers					Experienced Teachers				
	NTI	NT2	NT3	NT4	ALL	ET1	ET2	ET3	ET4	ALL
1. Lang. management	12	17	10	9	12[2]	22	23	24	19	22[1]
2. Procedure check	6	11	19	13	11[3]	10	12	15	6	11[2]
3. Progress review	10	3	4	11	7[6]	10	6	10	13	10[3]
4. Beliefs	5	7	9	8	7[6]	15	<1	7	5	8[4]
5. Know students	7	7	16	9	10[4]	10	3	5	7	7[5]
6. Affective	8	6	7	10	8[5]	4	7	5	10	6[6]
7. Decisions	5	8	6	5	6[7]	4	11	7	3	6[6]
8. Note students' behaviour & reactions	20	4	15	11	13[1]	2	1	7	4	3
9. Self-critique	6	11	5	<1	6[7]	1	3	0	9	3
10. Self-reflection	4	4	3	4	4	2	4	1	6	3
11. Comprehension	1	4	6	1	3	1	3	0	3	2
12. Past experience	1	2	3	3	2	2	3	3	1	2
13. Time check	3	<1	<1	5	2	5	3	3	3	3
14. Problem	3	1	<1	3	2	1	6	4	0	2
15. Contents	<1	3	<1	4	2	7	5	2	3	3
16. Aid comp.	<1	<1	2	1	1	1	3	0	<1	<1
17. Group work	2	<1	0	2	1	3	<1	<1	2	2
18. Level check	2	<1	<1	1	1	4	4	1	2	3
19. Name check	–	–	–	–	–	0	0	2	1	<1
20. Planning acts	1	0	0	0	<1	2	2	2	2	2
21. Prior knowledge	<1	<1	<1	1	<1	<1	1	0	0	<1
Total number of PTUs	231	215	223	141	819	300	218	164	225	907

Note: NT = Novice teacher; ET = Experienced teacher. ALL = Data collapsed across all four teachers in each group. Percentages may not add up to 100 due to rounding. Superscripts indicate the rank of the most frequently reported categories by each group.

Appendix C

Novice and Experienced Comparison Mullock 2006

Frequency (and Percentage) of teachers' reported Pedagogical Thoughts (Mullock, 2006)

Frequency (and Percentage) of Teachers' Reported Pedagogical Thoughts

	Teacher A	Teacher B	Teacher C	Teacher D	All Teacher
1. Language Management	96 (27%)[1]	84 (22%)[1]	79 (34%)[1]	60 (20%)[2]	319 (25%)[1]
2. Knowledge of Students	50 (14%)[2]	70 (19%)[2]	40 (17%)[2]	100 (34%)[1]	260 (21%)[2]
3. Progress Review	24 (7%)[4]	21 (6%)[5]	10 (4%)[6]	35 (12%)[3]	90 (7%)[4]
4. Procedure Check	28 (8%)[3]	43 (12%)[3]	34 (15%)[3]	21 (7%)[5]	126 (10%)[3]
5. Note Behavior	22 (6%)[5]	30 (8%)[4]	8 (3%)	33 (11%)[4]	93 (7%)[4]
6. Affective	19 (5%)[7]	11 (3%)	25 (11%)[4]	6 (2%)	61 (5%)[6]
7. Time Check	6 (2%)	18 (5%)[6]	13 (6%)[5]	8 (3%)[6]	45 (4%)[7]
8. Group/Pair Work	8 (2%)	1 (<1%)	4 (2%)[7]	7 (2%)	20 (2%)
9. Content	13 (4%)	16 (4%)	1 (<1%)	1 (<1%)	31 (3%)
10. Self-Reflection	19 (5%)	20 (5%)[6]	3 (1%)	2 (<1%)	44 (4%)[7]
11. Self-Critique	21 (6%)[5]	16 (4%)[7]	2 (<1%)	1 (<1%)	40 (3%)
12. Curriculum Fit	8 (2%)	0	0	0	8 (<1%)
13. Decisions	8 (2%)	6 (2%)	1 (<1%)	5 (2%)[6]	20 (2%)
14. Materials Comment	17 (5%)[7]	3 (<1%)	2 (<1%)	0	22 (2%)
15. Beliefs	4 (1%)	8 (2%)	5 (2%)	2 (<1%)	19 (2%)
16. Institution Comment	6 (2%)	3 (<1%)	0	4 (1%)	13 (1%)
17. Level Check	9 (2%)	1 (<1%)	1 (<1%)	3 (1%)	14 (1%)
18. Problem Check	1 (<1%)	2 (<1%)	3 (1%)	2 (<1%)	8 (<1%)
19. Comprehensibility	1 (<1%)	1 (<1%)	2 (<1%)	1 (<1%)	5 (<1%)
20. Probe Prior Knowledge	0	2 (<1%)	0	0	2 (<1%)
21. Name Check	0	0	1 (<1%)	0	1 (<1%)
22. Past Experience	2 (<1%)	9 (2%)	0	2 (<1%)	13 (1%)
23. Post Active	0	0	0	0	0
24. Planned Acts	0	0	0	1 (<1%)	1 (<1%)
TOTAL	362	365	233	294	1254
Thoughts Per Minute	6.0	6.1	3.8	4.9	5.25

Note. Superscripts indicate the simple ranks of the teachers' dominant reported pedagogical though categories

Appendix D

A Priori Codes from Studies by Gatbonton and Mullock

A Priori Coding list taken from categories used by Mullock and Gatbonton with interpretations of each category by the researcher

Category	Code	Explanation of Code
Affective	Afct	Focusing on the Affective State of the students
Aid Comprehension	AdCom	Introducing or planning an activity for the purpose of helping students understand
Beliefs	Blf	Personal beliefs about students/ or how they learn.
Comprehensibility/ Comprehension	Comp	The idea of making sure that the students understand what is going on.
Content	Cnt	Focus on the subject or content of the lesson.
Curriculum fit	Crclm	Making sure the curriculum matches the student needs/ student level?
Decisions (change of plan)	Decs	Teacher decides to alter the lesson plan
Group Work	GpWk	Focus on students working in partners, groups or together as a class.
Institutional Comment	InsCom	Focus on how the school is run, including rules, and administration expectations.
Knowledge of Students	KnlSt	Focuses on student backgrounds, interests, etc
Language Management	LanMan	Focus on making sure that the students are using correct grammar, pronunciation etc.
Level Check	Lvl√	Determining if the student is in the correct level
Materials Comment	Mat	Comment about the materials supplied by the school or by the teacher
Name Check	Nm√	Focus on identifying the student and pronouncing their names correctly.
Note student's behavior and reactions	StBvr	Watching how students are behaving, and how they are feeling in the classroom. Often includes nonverbal signals.
Past Experience	PsEx	Bringing in what has happened previously with what ties in with the current situation
Planned Acts	PlnAt	Focus on how the lesson was planned and keeping to the plan
Probe Prior Knowledge	PrKnw	Find out what students knew before the lesson/instruction

Problem Check	Pbl√	Find out if the students are having problems
Procedure Check	Pro√	Find out if the students understand what they are doing and how to do it
Progress Review	PrgRev	Help students identify what they have learned
Self Critique	SlfCrit	Teacher looks at how they taught and what they could do to improve their teaching
Self Reflection	SlfRef	Teacher looks at teaching style to determine if the class was effective or not
Time Check	Tm√	Keeping to a schedule and checking how much time has been used or is left in the class

Appendix E

A Priori Codes from Recommended Practices in Adult ESL

Secondary A Priori Coding List Four Areas of Adult ESL Pedagogical Knowledge from the Research & Specific Categories for Each Area

SLA (Second Language Acquisition)		
Category	Code	Explanation of Code
Authentic Materials	AuMat	Teacher introduces or uses materials that the students would normally encounter
Automaticity	Auto	Teacher works toward helping language knowledge become automatic esp. reading
Short Circuit Hypothesis	SCHyp	If too much is given at once or they are not sure of a concept the student is unable to learn
I+1	I+1	Teacher provides materials just a small step beyond the student's current comfort level
Affective Filters	AffFil	Teacher is focusing on student's ability to concentrate due to one or more of the following
Motivation	AFMot	Student's belief on the importance of the material at hand for some reason.
Self confidence	AFSlfCon	Student's belief on their ability to succeed.
Anxiety	AFAx	Student's preoccupation about something in the class or outside of class.
Steps of Acquisition	StpAq	Teacher recognizes that the students are in a process and are working on steps in their language acquisition.
Research is Limited in SLA	LmRsrch	Teacher recognizes the limited research done in Adult ESL
ESL Instructional Strategies		
Use visuals	vsl	Teacher uses visual stimuli to help the students understand something
Model Tasks	mdl	Teacher shows how to perform a task before asking the students to do it.
Scaffold learning	Scfl	Teacher builds on concepts already known or taught
Know student limitations	StLim	Teacher shows they know what the students can and cannot handle
Appropriate language and writing	ApLnWr	Teacher uses teacher-talk that is geared toward helping the students understand best
Implicit instruction	Imp	Teacher will expect students to infer the instruction from the models/examples etc
Explicit instruction	Exp	Teacher explicitly teaches a concept
Variety of activities	VarAct	Teacher changes and uses many activities to keep the student's attention
Routine activities	RtnAct	Teacher performs the regular activities that students can expect during the class

Celebrate success	ClbScs	Teacher applauds small and large student achievements
Adult Education:		
Self-directed	SlfDir	Students choose what is important in their education
Have reservoirs of experience	RsvEx	Teacher draws on student's pasts to help them learn new ideas
Are practical problem-solving-oriented	PblmSlv	Teacher provides "problems" that students must solve
Want their learning to be immediately applicable	ImmApl	Teacher focuses on items that the students can use right now in their lives
Want to know why something needs to be learned	Why?	Teacher shows the purpose of the lesson and its application
Multicultural Awareness		
Become acquainted with students' cultures	Cltr	Teacher shows a knowledge or desire to understand student cultures
Avoid stereotypes and generalization	Bias	Teacher does not expect specific behavior based on student cultural background
Value and incorporate other cultures	VluCltr	Teacher brings student cultures into discussions and activities
Value and incorporate the language skills	VluLan	Teacher shows understanding that all students have language and helps them coorelate
Be aware of their own potential value conflicts between cultures	VluCnfc	Teacher shows understanding of personal values and how they differ from students'
Understand that "all language learning is cultural learning"	LanCul	Teacher appropriately teachers cultural understanding with language training
Avoid taboo or painful subjects	Tabo	Teacher shows an understanding of personal and cultural subjects to avoid
Remember that culture can play a role in all facets of language	CulESL	Shows sensitivity to cultural differences in how communication is interpreted

Appendix F

Inductive Codes

Tertiary list of coding categories that the researcher added to complete the coding

Category	Explanation of Code
Participation	Teacher's thoughts and actions are concerned with having students participate, especially students who are not currently participating
Student Critique:	Teacher expresses thoughts that critique the students, including discouragement and frustration with the student as well as surprise at their development/abilities
Preparation:	Teacher's thoughts and/or actions are concerned with preparing the students for some future activity or life skill
Questioning:	Teacher asks questions
Eliciting Comments:	Teacher's thoughts and/or actions are concerned with attempting students to come up with a specific answer
Issues with Adult ESL Education:	Teacher's thought and/or actions are concerned with problems and dilemmas specific to adult ESL education
Assessment:	Teacher's thought and/or actions are concerned with assessing student knowledge
Practice:	Teacher's thought and/or actions are concerned with having the students practice what they were taught.

Appendix G

Teacher 1's Coded Categories and Relationship to Pattern Themes

Coded categories of Teacher 1 their primary relationship to the pedagogical pattern themes with examples of entries and explanations of the perceived motive behind the thought, belief or action.

Coding Categories	Total	Primary Theme	Example of a typical use and an explanation of how it ties to the primary theme
Aid Comprehension	34	Comprehension	"So I was looking for an easy way so that it would be easy to explain as we reviewed it."(Teacher 1,SR.1.16). She was constantly trying to find the easiest way for students to understand the material.
Beliefs	22	Comprehension	"I like to start with the easy ones then the hard ones will…I can explain them better once I get to the hard ones" (Teacher 1, FU.4.9–10). These were where her beliefs were based
Explicit Instruction	22	Comprehension	"Every time you begin a paragraph in your body you need a topic sentence to let the reader know where your paragraph is going" (Teacher 1, CR.6.5–6). Used this after questioning to make sure students understood
Appropriate Language and Writing	21	Comprehension	"When I sense they are confused then I go to the board and try to write out the sentences" (Teacher 1, SR.7.10–11). Used this after explicit instruction to make sure they understood
Questioning	21	Comprehension	"Actually order of importance goes least favorite and finishing with your favorite. So which ones are we going to start with?" (Teacher 1, CR.6.8–9) Used them to determine what the students understood
Affect	19	Student Centered	"and I realized that she was doing the other way. She was doing the equal, so I decided to focus on that for a little while" (Teacher 1, SR.4.21–22). Had a student centered approach to teaching, concerned with student choice
Self Reflection	19	Comprehension	"So I was starting to realize the…I should have maybe taken a different path on how to present that now. (Teacher 1,SR.4.19–20) Often reflected on what she could have done better to help them understand
Scaffolding	17	Comprehension	"I want to look at this one because we are are going to do the same thing with number three as with number two, but…" (Teacher 1,CR.10.1–2) Built on what they knew so they could understand better
Self Critique	17	Comprehension	"then it came to me that it was actually the previous week that I had explained it to them, so then I felt I had to explain to them more…" (Teacher 1 SR.1.8–9) Felt bad when they didn't understand or when a part didn't make sense.
Eliciting Comments	15	Comprehension	"Say, 'I'm going to write about…' what? Do you know…do you remember?" (Teacher 1,CR3.10–11) See questioning
Language Management	15	Student Centered	Used words they were struggling with to build a vocabulary list
Decisions	14	Comprehension	"They have things out of order (for what I consider the logical way of proceeding to teach something) then I will just rearrange the order within that module." (Teacher 1,P.4.10–11) Changed things to make them more comprehensible
Preparation	13	Student Centered	Wanted to prepare students to take the TOEFL test.
Comprehension	12	Comprehension	"And I liked that she said "also" because she was realizing what the concept was that was a transition of, you know, advantages." (Teacher 1,SR.7.19–20)

			See AdCom
Materials	12	Comprehension	"I just wanted to get away from that because that's the one I realized was not really parallel to what it was teaching." (teacher 1,SR.7.16–17) Concerned with materials that could have explained things better
Participation	12	Comprehension	In supporting paragraph one you are going to be talking about the advantages of working in groups. And what's SP2? Hun*? Checked for comprehension
Progress Review	12	Comprehension	"do you remember when I told you that advantages is a little different than other types of essays? Do you remember me talking about that?" (Teacher 1 CR.2.13–14) Did they undertand?
Implicit Instruction	11	Comprehension	"so I was trying to lead them into, if they were not going to give equal importance then they need to do the order of importance." (Teacher 1,SR.8.7–8) See eliciting
Knowledge of Students	11	Comprehension	"I hope they are understanding me…I have a lot of experience with these girls and I think that they understand the way I communicate with them." (Teacher 1,SR.3.20–SR.4.2) Knew what they could understand and how fast to proceed
Past Experiences	11	Comprehension	I had told them that the skeleton was a support, so I was just reminding them of that." (Teacher 1,SR.1.12 Used what they had experienced to get them to understand the next part
Not Student Behavior	11	Comprehension	"I think here I felt like they were a little bit confused." (Teacher 1,SR.7.7) compare to (Teacher 1,FU.5.6) "well for one thing thy are not answering questions, or they are giving wrong answers or I just get the feeling that something is off." Watched for clues that showed they were confused
Celebrate Successes	10	Comprehension	"Teacher: what had you written? Student One: Support the current point. Teacher: Good! Supporting your point..." (Teacher 1,CR.1.16–18) Most often given when they understood
Procedure Check	10	Comprehension	"in which part of the essay do you tell which one you prefer: at the beginning of the essay, in the middle of the essay, or at the end of the essay?" (Teacher 1,CR.2.19–20) Checked to make sure they understood what to do
Student Limitations	10	Comprehension	"this kind of surprised me that they didn't get what I was saying here." (Teacher 1,SR.4.18) Tries to guess where they would have a hard time understanding

*Student Names have been changed

Appendix H

Teacher 2's Coded Categories and Relationship to Pattern Themes

Coded categories of Teacher 2, their primary relationship to the pedagogical pattern themes with examples of entries and explanations of the perceived motive behind the thought, belief or action

Coding Categories	Total	Primary Theme	Example of use and how it ties to her overall theme of Engagement
Affect Motivation	58	Engagement	"I like to interact with all of the kids personally so that they know that I know they are there" (Teacher 2.SR.3.17–18) This was her primary Focus (perhaps should be Affect Engagement)
Beliefs	35	Engagement	"you have to move or else you'll lose too. If you don't keep the pace of the lesson going…" (Teacher 2.SR.5.22–23) Her beliefs centered around Engagement and momentum
Affect	29	Engagement	"So I thought I would go through some of those words, so that they could have some fun with it." (Teacher 2.P.2.13–14) See #1
Celebrate Successes	21	Engagement	"Make sure that you say something about their answer. Say, 'that was good…' or take a work from it. and the more you do that then the more they feel free to discuss." (Teacher 2.FU.2.4–6) She praised students to keep them motivated and willing to risk
Group Work	21	Engagement	"you can put three together and have them work…they pick up enthusiasm from each other." (Teacher 2.SR.4.9–10) Worked together to get energy and stay engaged and participating
Questioning	20	Engagement	"Rather than telling them the information, I like to have it more of a give-and-take and keep the students engaged in the current presentation." (Teacher2 FU.1.4–6) Questioned to engage and encourage participation
Language Management	19	Language Management	I like to listen to them all to make sure…like I said, I listen to see if they are mispronouncing any… (Teacher 2.SR.4.18–19) Importance of having them say it correctly, but don't lose the class and give individual attention.
Modeling	17	Engagement	"I thought if they could hear me as a model then maybe they would have more fun with it and get more rhythm." (Teacher 2.SR.5.8–9) Modeled to show that it could be done and it was alright to risk
Affect Self Confidence	16	Engagement	"You have to give him positive reinforcement, so he'd stay with me." (Teacher 2.SR.6.8–9) See #1
Practice	15	Engagement	"I think the best way to teach English is to have them actually produce it." (Teacher 2, FU.6.15–16) Wanted them to constantly be engaged
Aid Comprehension	14	Engagement	"if you want someone to do something you first have to show them what you want them to do!" (Teacher 2, FU2.14–15) If they understood what they were doing they would continue doing it
Explicit Instruction	14	Engagement	"I thought is would be easier for them to read it if they understand what the words meant." (Teacher 2.SR.3.5–6) Same as above
Self Reflection	14	Engagement	"I think that they felt good about it. I felt that it was a success." (Teacher 2.SR.7.7) Did the students like it? Were they engaged?

Student Behavior	14	Engagement	"some of them were [more] engaged than others. So you look around, and if they are working you just let them go ahead…but if there's a couple who aren't, I try to make a little more guidance to make sure they are engaged." (Teacher 2,SR.6.12–14) Are they still with me?
Decisions	12	Engagement	"So when you feel like the class is dragging that means that they...people are losing their energy…then you have to do something: change the pace or change the activity." (Teacher 2.FU.3.10–13). What do I add or rearrange to keep them engaged?
Past Experience	12	Student Centered	The joke method that we've tried before and can't…They just can't do the jokes. (Teacher 2 P.3.1–4). Does activities that students have succeeded at in the past.
Knowledge of Students	11	Engagement	"that's the hard part of teaching. You have to know what will engage each one, what system, what technique works with…better with them." (Teacher 2.FU.4.12–13) Know what will motivate them
Affect: Anxiety	10	Engagement	So I have to find something each day that deals with the lesson…that will get them relaxed and wanting to participate." (Teacher 2.P.1.11–13) See #1
Assessment	10	Engagement	I like to have some kind of a something…some kind of presentation…that they can share with me or with the class…they like to watch each other, so it really helps with the listening and the speaking." (Teacher 2.P.3.10–16) Used it to celebrate what they knew and also to reward attendance
Comprehension	10	Comprehension	A peck is a measurement…you know, like a bushel, a peck is half a bushel, and he puts them in a basket. Explained things so they would understand what was going on.
Self Critique	10		No obvious tie to any of the Pattern Themes so it was eventually removed from her analysis Mostly Self Criticism of how she looked and sounded on the tape.
Student Limitations	10	Engagement/ Student Centered	[To a struggling student] "ok which one? You can do one of these little ones here if you want to." (Teacher 2.CR12.11–12) Can they do this or will it discourage them?
Time Check	9	Engagement	"The reason is because they were taking a little too long. I felt the time was dragging and I wanted to pick it up a little bit. You have to more or else you'll lose too." (Teacher 2.SR.5.21–22) Am I taking too much time and am I losing them?
Why something has to be learned	9	Engagement	We're going to make it fun rather than just read words and know how they're pronounced. *This will help you articulate the English words quicker.* And they are called English tongue twisters." (Teacher 2.CR.4.6–8) If they know why then they will want to do it.

Appendix I

Teacher 3's Coded Categories and Relationship to Pattern Themes

Coded categories of Teacher 3, their primary relationship to the pedagogical pattern themes with examples of entries and explanations of the perceived motive behind the thought, belief or action

Coding Categories	Total PTs	Primary Theme	Example of a typical use and an explanation of how it ties to the primary theme
LanMan	35	Language Management	"I am trying to get him to talk about should, which was a review of last week… I couldn't really get him to respond with should" (Teacher 3. SR.3.2–3) Expressed a desire to teach language skills—failed to get the students to do it.
Questioning	31	Comprehension/ Academic Focus	"What is the solution? What should she do? She should …." (Teacher 3.CR.6.17–18) Main: language management "When did you have a motorcycle accident…When? [While asking was organizing cards and papers]" (Teacher 3.cr.6.2–3 2ndary: show good listening
Visual	24	Academic Focus	"I really feel strongly about using visual… instead of …have them look it up in a dictionary and take that time…show them a visual picture because immediately they understand the vocabulary" (Teacher 3.FU.3.14–17) Used visuals as protocol
Reservoirs of Experience	21	Student Centered	"Most of the lesson was showing him cards and getting him to tell me what the pictures are and to try to elicit some sort of personal example or personal experience." (Teacher 3.SR.2.14–15) Talked about students have reserves of knowledge, but didn't draw on them. or thought she had brought them up when the student really had
Content	20	Academic Focus	"trying to think how I can get onto the topic of pharmacy which was the topic of today" (Teacher 3.SR.5.22–23) Wanted to make sure she followed the module
Knowledge of Students	18	Student Centered	"I couldn't understand why he was talking about art and anatomy, and he's very into art professionally so he was trying to tie it in to help… I didn't know why at this point he was talking about it, it just seemed totally off the subject" (Teacher 3.SR.9.10–13) Understood her students, but complained about it instead of using it.
Planned Activities	18	Academic Focus	"What I was really thinking w'as can you please let me give the lesson [laughing] get started with what we really needed to talk about today." (Teacher 3.SR.9.15–17) Tried to follow her lesson as she had planned
Aid Comprehension	17	Academic Focus	"And so he was showing me his raised arm and I wanted to teach him the correct English word so it could be visual. Here I m modeling again." (Teacher 3.SR.4.20–21) She used research based practices to aid her comprehension
Implicit Instruction	17	Language Management	"Here I am trying to use should but he didn't…you should.. I tried should but he didn't use should" (Teacher 3.SR.3.6–7) Used Implicit Instruction to both correct and guide which words the students were to use.
Progress Review	15	Comprehension/ Content	"So what did you do for your leg ankle? What did you do? *Things that we talked about*, did you put ice, heat? (Teacher 3.CR.9.1–2) Reviewed to find out if they remembered what they had talked about. Usually based on content.
Modeling	14	Academic Focus	I was hoping that just by showing him the pictures and doing some kind of little role play and partner discussion that he would come out and tell me what I was asking because I kept saying…trying to model—he should, he should—and it didn't come out. (Teacher 3.FU.1.17–20)

			Modeled a lot expecting the student to pick up on the model,
Scaffolding	14	Language Management	"I am trying to use aches, sore and pain which was the vocabulary from last week." (Teacher 3.SR.5.15) compare to (Teacher 3.CR.8.7–9) "TEACHER: so ache is..so ache and then sore and then hurt. So it probably hurt a lot. Ow! STUDENT: and um three years…yes problems chens times first… She uses Implicit instruction to carry out her scaffolding attempts.
Student Critique	13	Student Centered	"I'm waiting for him to get to the point. This is a representation of every night" (Teacher 3.SR.9.21–22) Often talked discouragingly about the student and her frustrations
Beliefs	11	Student Centered Academic Focus	"Is it more important that they are just talking and participating or is the important thing that you talk about the topic than just anything." (Teacher 3.FU.3.23 FU.4.1) Often conflicting: student focus or lesson focus
Materials	11	Academic Focus	"So I like to use a lot of visuals and bring things in from how that they can handle and touch and do roles plays with it." (Teacher 3.FU.3.17–19) See Visuals
Eliciting Comments	10	Language Management	"Ok, he has a…[waits for student to complete her sentence]" (Teacher 3.CR.4.13) "What I could have…should have done was written it on the board and said this is what we're doing." (Teacher 3.FU.1.20–21) Used it for Language Management, but doubted its effectiveness
Participation	10	Academic focus student Centered	"I like active participation" (Teacher 3.FU.3.19) Hard to determine because she only had one student, but she wanted him in her discussion didn't seem to want to lecture
Past Experiences	8	Student Centered	"He was really great with a lot of personal examples, and here I told him …one more because I… that was enough." (Teacher 3.SR.7.6–7) She seems to want personal experiences in theory, but gets tired of it when the student does it too much. See *Reservoirs of Experience*
Affect Motivation	7	Student Centered Academic Focus	"I'm trying to make some positive feedback here because he is trying to tie it in with knowledge that he has" (Teacher 3.SR.4.10–11) Wanted to keep the student engaged in her lesson
Decisions	7	Academic Focus Student Centered	"At night a lot of the students come late and so the teacher has to make a lot of modifications to lesson plans" (Teacher 3.P.3.21–22) Added material to engage students and help them review
Group Work	7	Student Centered	"Have them write their own stories and then partner share and so they are actually writing them and then reading" (Teacher 3.FU.4.14–15) Liked group work, so they could practice
Issues in Adult ESL Education	7	Student Centered	"Immigrants, well some of them…you don't know what their educational background is." (Teacher 3.FU.4.16) Understood a lot of the issues in Adult Ed and discussed them more than other teachers
Time Check	7	Academic Focus	"Here I am saying let's get onto the next topic which was what I really needed to talk about today, because we were a couple days behind." (Teacher 3.SR.9.6–8) Checked to make sure she was on schedule with her plan

Appendix J

Teacher 4's Coded Categories and Relationship to Pattern Themes

Coded categories of Teacher 4 their primary relationship to the pedagogical pattern themes with examples of entries and explanations of the perceived motive behind the thought, belief or action.

Coding Categories	Total	Primary Theme	Example of a typical use and an explanation of how it ties to the primary theme
Language Management	43	Language Management	"I think it's important for them to get pronunciation right on the English words for other people to understand them for them to be able to communicate with other people." (Teacher 4.FU.3.20–21) Wanted the students to know how to say it correctly.
Modeling	43	Language Management	"I like to constantly pronounce it right for them and have them repeat it. I think that will help them eventually get it right." (Teacher 4.FU.2.11–12) Showed them how to say it correctly so they could copy it.
Beliefs	15	Language Management	"I think it's important for the students to pronounce the words correctly and I know that accents…it's like, I don't think accents can every fully go away; I don't think they should. I think accents are fine, but pronunciation is different than accents." (Teacher 4.FU.3.17–19) Students need to know how to pronounce correctly to communicate
Problem Check	14	Language Management	"I was thinking about trying to keep track of letters they weren't pronouncing right or didn't know so I could draw their attention to it." (Teacher 4.SR.1.16–19) She checked on proper pronunciation and word use
Content	11	School Expectations	"The objectives are already written in here, so that's nice, so I know what the current purpose is, I know what I'm supposed to… I'm trying to help them do." (Teacher 4.P.1.8–10) Loved the organization of the modules and teaching materials.
Group Work	11	Language Management	I help them if they are stumbling on a letter. Usually their partner helps them." (Teacher 4.P.1.16–17) Gives them time to practice to get better
Decisions	10	Student Centered	So I try to do a lot more conversation and partner work. That seems to be the most that the students want is a lot of conversation." (Teacher 4.P.3.15–17) Students have asked for more conversation so she appeases them, but she wanted to do more writing.
Practice	10	Language Management	I could tell them the pronunciation and have them practice it [together] and then have them practice it on their own. (Teacher 4.FU.3.3–4) She had them practice so they would master the language exercises often incorporated with group work.
Explicit Instruction	9	Language Management	"TEACHER: *Fuentes? the current last name is Fuentes. STUDENT: the current last name is Fuentes." (Teacher 4.CR.7.3–4) Intoned explicitly and expected the students to repeat after her word for word
Affect	8	Student Centered Engagement	"I think it's important to have the friendly atmosphere that the students have with each other cause then they're comfortable making mistakes in front of each other." (Teacher 4.FU.4.19–21) Wanted a safe learning environment for the students.
Student Limitations	8	Student Centered Language Management	"I was thinking Pedro* needs a lot more practice on the alphabet" (Teacher 4.SR.4.8) "I never really think about working one on one with her because she's kind of ready to move on." (Teacher 4.SR.4.20–21) Help those struggling with language, let the others continue.
Aid Comprehension	7	Comprehension Language Management	"So I was thinking I will ask him *his* information as an example. Show him what I want." (Teacher 4.SR.4.1–2) She usually thought about aiding comprehension when she was focused on correct language use.

Appropriate Language and Writing	7	Student Centered Language Management	"If they say it wrong the current thoughts are to just to have them repeat after me." (Teacher 4.SR.2.13–14) Used correct writing and speaking to model for the students correct language use. Help those struggling with language, let the others continue. (see student limitations)
Knowledge of Students	7	Student Centered Language Management	"So I wanted to be one on one with him so I could kind of see more where he was at. I was thinking they could be together because they know their letters pretty much." (Teacher 4.SR.1.21–2.1–2) Help those struggling with language, let the others continue. (see student limitations)
Participation	7	Engagement	A lot of the current plans are geared towards making them talk and interact, 'cause a lot of them are tired, so they'll get bored or fall as…no fall asleep, but sometimes they just get tired…so a lot of talking." (Teacher 4.P.3.23–4.3) Wanted active participation to keep the students engaged.
Note Student Behavior	7	Engagement	So I was thinking that I should encourage him and tell him he was doing a good job, so he doesn't get frustrated." (Teacher 4.SR.5.13–15) Watched to see which students needed encouragement to stay engaged and continue participating
Affect Anxiety	6	Engagement	"I think it's important to have a classroom where everyone is friends." (Teacher 4.FU.4.14) Wants them comfortable so they don't worry and will participate See Affect
Celebrate Successes	6	Language Management	"You said it. You said it really [well]." (Teacher 4.CR.12.22) Gave praise when they said it correctly
Self Reflection	6	Student Centered Language Management	"So I helped him out, but I was thinking somehow we need to practice that more." (Teacher 4.SR.4.9–10) Watched to see which students need more help with the language: See knowledge of students.
Time Check	6	Engagement Comprehension	"I think it's important as a teacher to realize when it's too much and when you need to work on it some more." (Teacher 4.FU.5.22–23) Balance comprehension of all the students with covering the material.
Progress Review	5	Comprehension Language Management	"So what are some questions…when we are having a conversation? What is your name? So repeat after me: What is your name?" (Teacher 4.CR.12.7–8) Did they remember, did they get the new ideas?
Scaffolding	5	Engagement Comprehension	"I was thinking about how we were going to practice this. If they were going to repeat after me or just go into it." (Teacher 4.SR.3.10–11) Wanted to make sure the students would stay engaged and understand

Appendix K

Ranking of the First A Priori Categories for Current Participants

Comparison between the four participants of the current study using the first a priori list. Lists the categories according to the average ranking and also gives the percentages of frequency for each of the participants for each category.

Categories from first A-Priori List	Teacher 1	Teacher 2	Teacher 3	Teacher 4	My study total
1. Language Management	1.35%	4.11%	12.12% [4]	18.52% [1]	8.67%
2. Knowledge of Students	1.35%	8.22% [6]	12.12% [3]	9.26% [5]	8.00%
3. Student Actions and Behavior	10.81% [2]	10.96% [2]	3.03%	7.41% [7]	7.67%
4. Aid Comprehension	6.76% [4]	2.74%	9.09% [5]	9.26% [4]	7.00%
5. Content	6.76% [5]	0.00%	12.12% [2]	7.41% [6]	7.00%
6. Decisions	4.05%	8.22% [5]	3.03%	11.11% [3]	6.00%
7. Time Check	1.35%	10.96% [3]	6.06% [7]	5.56%	6.00%
8. Self-Critique	12.16% [1]	6.85%	3.03%	0.00%	5.67%
9. Beliefs	4.05%	12.33% [1]	3.03%	1.85%	5.33%
10. Planned Activities	2.70%	0.00%	13.13% [1]	0.00%	5.00%
11. Self-Reflection	5.41%	8.22% [7]	2.02%	5.56% [8]	5.00%
12. Affective	5.41% [7]	8.22% [4]	3.03%	1.85%	4.67%
13. Comprehensibility	9.46% [3]	5.48%	1.01%	0.00%	4.00%
14. Materials Comment	5.41% [8]	0.00%	7.07% [6]	1.85%	4.00%
15. Past Experience	6.76% [6]	4.11%	4.04%	0.00%	4.00%
16. Problem Check	2.70%	0.00%	1.01%	12.96% [2]	3.33%
17. Progress Review	2.70%	1.37%	5.05% [8]	1.85%	3.00%
18. Group Work	1.35%	6.85% [8]	0.00%	1.85%	2.33%
19. Procedure Check	5.41%	1.37%	0.00%	0.00%	1.67%
20. Curriculum	2.70%	0.00%	0.00%	1.85%	1.00%
21. Institutional Comment	0.00%	0.00%	0.00%	1.85%	0.33%
22. Prior Knowledge	1.35%	0.00%	0.00%	0.00%	0.33%
23. Level Check	0.00%	0.00%	0.00%	0.00%	0.00%
24. Name Check	0.00%	0.00%	0.00%	0.00%	0.00%

Appendix L

Comparison of Current and Previous Studies

Comparison Between the Current Participant Teachers and Participants from Previous Studies by Gatbonton and Mullock with Additional Columns for Novices Participants

Categories from first A-Priori List	Teacher 1	Teacher 2	Teacher 3	Teacher 4 novice	My study total	Mullock	Mullock Novices	Gatbonton	Gatbonton Novices
1. Language Management	1.35%	4.11%	12.12%	18.52%	8.67%	25%	25.00%	22%	12%
2. Knowledge of Students	1.35%	8.22%	12.12%	9.26%	8.00%	21%	17.00%	7%	10%
3. Student Actions and Behavior	10.81%	10.96%	3.03%	7.41%	7.67%	7%	7.00%	3%	13%
4. Aid Comprehension	6.76%	2.74%	9.09%	9.26%	7.00%	N/A	N/A	<1%	1%
5. Content	6.76%	0.00%	12.12%	7.41%	7.00%	3%	4.00%	3%	2%
6. Decisions	4.05%	8.22%	3.03%	11.11%	6.00%	2%	2.00%	6%	6%
7. Time Check	1.35%	10.96%	6.06%	5.56%	6.00%	4%	3.00%	3%	2%
8. Self-Critique	12.16%	6.85%	3.03%	0.00%	5.67%	3%	5.00%	3%	6%
9. Beliefs	4.05%	12.33%	3.03%	1.85%	5.33%	2%	1.00%	8%	7%
10. Planned Activities	2.70%	0.00%	13.13%	0.00%	5.00%	<1%	0.00%	2%	<1%
11. Self-Reflection	5.41%	8.22%	2.02%	5.56%	5.00%	4%	5.00%	3%	4%
12. Affective	5.41%	8.22%	3.03%	1.85%	4.67%	5%	4.00%	6%	8%
13. Comprehensibility	9.46%	5.48%	1.01%	0.00%	4.00%	5%	<1%	2%	3%
14. Materials Comment	5.41%	0.00%	7.07%	1.85%	4.00%	2%	3.00%	N/A	N/A
15. Past Experience	6.76%	4.11%	4.04%	0.00%	4.00%	0%	2.00%	2%	2%
16. Problem Check	2.70%	0.00%	1.01%	12.96%	3.33%	<1%	<1%	2%	2%
17. Progress Review	2.70%	1.37%	5.05%	1.85%	3.00%	7%	0.00%	10%	7%
18. Group Work	1.35%	6.85%	0.00%	1.85%	2.33%	2%	1.00%	2%	1%
19. Procedure Check	5.41%	1.37%	0.00%	0.00%	1.67%	10%	0.00%	11%	11%
20. Curriculum	2.70%	0.00%	0.00%	1.85%	1.00%	<1%	1.00%	N/A	N/A
21. Institutional Comment	0.00%	0.00%	0.00%	1.85%	0.33%	1%	1.00%	N/A	N/A
22. Prior Knowledge	1.35%	0.00%	0.00%	0.00%	0.33%	<1%	<1%	<1%	<1%
23. Level Check	0.00%	0.00%	0.00%	0.00%	0.00%	1%	1.00%	5%	1%
24. Name Check	0.00%	0.00%	0.00%	0.00%	0.00%	<1%	0.00%	<1%	0%

Appendix M

Top Eight Group Pedagogical Thought Categories

Top eight group pedagogical thought categories from stimulated recall comparing individual teacher rankings to results of previous studies.

Top 8 Categories from the current Study	T-1	T-2	T-3	T-4	Gatbonton total	Mullock Total
1. Language Management	#19	#11	#4	#1	1	1
2. Knowledge of Students	#18	#6	#3	#5	5	2
3. Note Student Actions and Behavior	#2	#2	#14	#7	9	4
4. Aid Comprehension	#4	#13	#5	#4	21	7
5. Content	#5	N/A	#2	#6	12	11
6. Decisions	#12	#5	#12	#3	7	13
7. Time Check	#21	#3	#7	#9	13	9
8. Self-Critique	#1	#9	#13	N/A	11	10